

[House Hearing, 108 Congress]
[From the U.S. Government Printing Office]

DEPARTMENT OF DEFENSE APPROPRIATIONS FOR 2004

HEARINGS

BEFORE A

SUBCOMMITTEE OF THE

COMMITTEE ON APPROPRIATIONS

HOUSE OF REPRESENTATIVES

ONE HUNDRED EIGHTH CONGRESS

FIRST SESSION

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Printed for the use of the Committee on Appropriations

U.S. GOVERNMENT PRINTING OFFICE
92-804 WASHINGTON : 2004

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DEPARTMENT OF DEFENSE APPROPRIATIONS FOR 2004

Wednesday, March 12, 2003.

FISCAL YEAR 2004 ARMY POSTURE

WITNESSES

HON. THOMAS E. WHITE, SECRETARY OF THE ARMY
GENERAL ERIC K. SHINSEKI, CHIEF OF STAFF, UNITED STATES ARMY

Introduction

Mr. Lewis. The Committee will come to order.

General, I think we will begin by apologizing to both you and the Secretary for the delay in starting the hearing.

As you know, we lost some young soldiers overnight on a Black Hawk helicopter that went down. It is always painful when we lose our young people, and the members of the Committee want you to know that our hearts as well as our thoughts are with you and their families.

General Shinseki. Thank you.

Secretary White. Thank you.

Mr. Lewis. This afternoon the Committee welcomes the Honorable Thomas E. White, the Secretary of the Army, and General Eric K. Shinseki, Chief of Staff of the Army, as we hold an open hearing on the posture and acquisition programs of the United States Army.

Mr. Secretary, General, on behalf of the Committee I want to welcome each of you and thank you for your service in these very difficult times. I will come back to that in just a moment.

Today, we meet to hear your testimony in support of the fiscal year 2004 budget request. I would note that this budget, and those that have preceded it in recent years, continue the path of change that you and your associates in Army leadership have embraced as the challenges of this new century have become steadily more apparent. It is not an understatement to say that your efforts to rethink the Army's organization of its forces; develop different and better equipment for a more agile and responsive Army; and, above all else, to hold true to the enduring importance of people, leadership and fielding an Army that fights as it trains, those basic tenets have been right on the mark in the view of this committee and at least from this member's perspective.

We want you to know that we are deeply appreciative of the thought that has gone into this. I think your insistence on these priorities have been highly regarded and legitimately so in many a circle. In my view, as time goes on, they will be historically significant to all who observe the work of our

national forces during this critical time.

You have already achieved considerable success in this regard. The Congress and the American people have seen the results firsthand again and again from Bosnia to Kosovo to Afghanistan to the current operations pertaining to Iraq.

As we all know, the hardest tasks before those in leadership positions is to successfully promote and to produce change. And with respect to the Army, the two of you, the DOD, this Committee and others have all seen our share of frustrations along the way. This is not new, especially when it comes to developing and fielding equipment.

Many of us recall vividly a hearing this subcommittee held 3 years ago where representatives from the Army were unable to answer basic questions about the status and continued relevance of your acquisition programs. As a result, we pushed the Army to rethink both the process for developing and acquiring weapons and how the Army organizes itself to accomplish that task. Mr. Secretary and General Shinseki, you both heard us; and you have responded.

We know what it is like to propose new ideas and technologies. Not so long ago--we have talked about this a lot. Not so long ago, this Committee had to struggle with all of the military services to win the acceptance of Unmanned Aerial Vehicles as a regular element of the forces you deploy. Now, with the successes of these systems in the Balkans, in Afghanistan and elsewhere, one almost takes for granted the capabilities of these systems, what they bring to the fight and to each of the services as well.

And, General Shinseki, I would like to say to you that our troops who have used the Stryker medium combat vehicle, those troops and our warfighting commanders, they feel the same way about a system which was not brought into this world in a typical fashion, a major new program which will fill a dangerous void in our Nation's power projections capability.

Now it goes without saying that, even while we are here principally to discuss the 2004 budget request, all this takes place at a very dangerous time in our world history and indeed a very dangerous time for our Nation. Your forces are engaged around the clock supporting the global war on terrorism in Afghanistan and elsewhere. You have deployed thousands of troops for a likely conflict in Iraq, and events on the Korean peninsula continue to represent a cause of grave concern. And let us not forget those tens of thousands of Reservists who have been called to duty who are not only on the front lines overseas but also, in a way we have not seen since the Second World War, providing for our homeland security as well.

No one ever believed we would need soldiers to protect our places of business, production and public gatherings. But the troops who have taken on this job have been a soothing reminder of those who are willing to protect our Nation with their lives; and the soldiers have performed their duties with good cheer, grace, and efficiency that have made them welcome everywhere they have gone.

The lesson is that the world, at least for we Americans, has changed. Yet America's Army is where it has always been, on the front lines, wherever those front lines may be.

We understand the tremendous pressures that these events

place on your equipment, your facilities and all of those Army families, the military and civilian, their loved ones, those called to duty, and those with ties of blood and history to those who serve.

We are here today to hear your views on these matters and have a number of questions we need to discuss with you in that regard. I want you to know that your entire statement will be included in the record as we proceed. This member and all of those sitting on this Committee have, over the years and especially since September 11, seen firsthand the hard work and the difficult missions carried out by our forces in the field.

Indeed, within the past few weeks, some of us have traveled to observe our forces deployed on the front line to see those young men and women firsthand; and indeed it is not just a thrilling but in many ways a frustrating experience.

This is a testament to all of the work of our Armed Forces, but the teamwork that exists in connection with this commitment in many ways is personified by a man who I believe has been in the right place at the right time. I would like to take just a moment, if you will, to talk about an individual. This young man of whom I speak, throughout his 37 years in the service of our country, beginning with West Point, to distinguished service in Vietnam, and then the postings with the Army in Europe during the Cold War, he served the Nation with distinction. He was part of that force which both kept the peace during that time and then made possible the dismantlement of so many of those walls in Europe.

Then, in the new world following the end of the Cold War, he assumed positions of increasing responsibility; and just 6 years ago he was placed in command of the multinational forces who helped bring some measure of peace to Bosnia and also Kosovo. Now, after 4 years as Chief of Staff, through those very tough, demanding years, he can look back as being the man who was ahead of many in making the concept of military transformation shift from being a slogan to a working reality. He did this with a clear vision, candid talk and perseverance and, by so doing, helped bring this Nation to the top of the Defense agenda.

He has done all of this while presiding over an Army which, following the shock of September 11, moved around the world to help liberate Afghanistan and which as we meet today is hunting terrorists and protecting America's interests in many places. That same Army today is now joined with the Navy, the Marines, the Air Force and others in carrying out what we all know is a very difficult, crucial and probably long-term mission in the Middle East.

Of course, you all know that I am referring to General Eric Shinseki. Ric, you have been a great friend of this Committee. We want the country to know what we think of your service. A soldier who has fought in the Nation's wars along with many others and who has also benefited from the opportunities granted by our country in the military that services it. General, we thank you for your work.

Mr. Secretary, we thank you for your work.

Secretary White. Thank you.

Mr. Lewis. Before we move on to that testimony, I suggested earlier I would like to call on my friend and colleague from

Pennsylvania, Jack Murtha.

Remarks of Mr. Murtha

Mr. Murtha. As you know, Mr. Secretary, the Chairman, myself, Mr. Dicks and Mr. Hobson just came back from Kuwait. What a transformation. When I was there in August--I mean, in August I knew we weren't going to war in the near future; and today they are ready to go.

I stood there with my nephew, who is in the other branch of the service, in tents left over from the Army and a flag that I gave him that was flown over the Capitol and I listened to those young folks talk about how well prepared they were and some of the systems that we put in place.

The Chairman is too modest when he talks about the Predator. If it hadn't been for him, there would be no Predator. He was the guy who pushed it. He was the guy that got criticized, and he was the guy that they tried to stop from putting it out in the field. He persisted, and that Predator is one of the most important systems that we have. The combat systems that they have today, which have been improved so much, the batteries so much smaller, which gives them such an advantage. And they are confident that they will win this war. There is no question in our mind about it.

There is no question that the conditions are very austere and very difficult. But I was so impressed by the new logistic system we have where you can go in there--

And, by the way, I asked how many were Reserve and Guard people; and half of them held up their hands; and they were seamless. You couldn't tell the difference between who was the Guard and the Reserve.

But they will be able to save money by not stockpiling stuff in the front. They will be able to send it out where it is needed because of the computerized system that works so well.

And they are going to prevail. None of us want to go to war. But if we have to go to war when the President makes the decision, I am so confident under your leadership you have done such a good job. And, of course, the lighter Army is going to be the Army of the future; and you folks have done so much. Greg Dahlberg, who was here, was in the forefront--and Kevin Roper.

All of us in this Committee feel so strongly that we have got to move the Army in another direction, along with you. So I look forward to hearing your testimony and congratulate you and compliment you on the work that you have done, because the product is out there in the field ready to go.

Mr. Lewis. Mr. Secretary, please proceed. Your entire statement will be placed in the record.

[Clerk's note.--The Fiscal Year 2003 Joint Posture Statement of the Secretary of the Army and the Chief of Staff of the Army is printed at the end of this hearing. See page 140.]

Summary Statement of Secretary White

Secretary White. Thank you, Mr. Chairman, Congressman

Murtha, distinguished members of the Committee. I am grateful for this opportunity to talk to you today about the Army.

Our priorities remain the same as they were a year ago: Win the global war on terrorism and transform the Army, as you have talked about, to prepare it for future wars.

First and foremost, I wish to thank this Committee for your continued support of the Army. The 2003 budget has allowed us to make significant improvements in many key areas. We have structured our budget request for 2004 in exactly the same fashion as 2003, based upon our top priorities of People, Readiness and Transformation.

PERSONNEL INITIATIVES

The people front. Thanks to you and your support, we are making significant strides in the personnel area with initiatives including a fully funded general pay raise for all soldiers, targeted pay raises in selective cases, significantly reduced soldier out-of-pocket expenses for housing, and an accelerated Residential Communities Initiative to improve on-post quarters for our families.

This year, we are examining options under an initiative called personnel transformation to shift away from our individual replacement system to a unit manning approach that will enhance the cohesion and combat readiness of our formations while improving the predictability of assignment patterns for Army families. As you know, we have had over 30,000 National Guardsmen and Reservists on active duty consistently since the 11th of September of 2001; and, as of today, we have activated over 130,000 soldiers for current and potential future federal operations at the federal level. In addition, over 2,700 soldiers currently are activated for state service.

These Reserve Component soldiers are performing magnificently, and we appreciate the tremendous support they have received from their employers as well as the American public. We recognize the unique sacrifices made by these citizen soldiers as they step up to do their duty as citizens and patriots.

READINESS AND OPTEMPO

In readiness, the Army is ready for any additional operations that we are ordered to perform in the future; and our great soldiers are successfully meeting our many current obligations around the world.

With your help in 2003 and again in our 2004 budget request, we gave priorities to funding training requirements for the force, significantly improved our spare parts availability and accelerated fielding of soldier support systems and unit communications equipment to make our units as ready as possible.

Having said that, our operational tempo--I think the Chief would echo this--has never been higher in the 40 years of experience that I have with the Army. We are indeed an Army on the move.

While we are actually funded normal OPTEMPO training,

including the full complement of pre-9/11 missions such as Bosnia and Kosovo and the Sinai and Korea, we have many other obligations as we pursue the global war on terrorism as part of the joint force. Post 9/11 missions in the past 18 months include Operation Noble Eagle here at home, Enduring Freedom in Afghanistan, as well as operations in the Philippines and elsewhere.

Finally, we have the significant flow, as you have seen personally, of Army forces into the Persian Gulf in support of the diplomatic effort to insure the disarmament of Iraq.

Given this level of activity, I don't think it is any surprise that supplemental funding will be required in 2003 as we progress during the year.

We are working hard to balance our readiness imperative for realistic training with our obligation to be good stewards of the environment. That balance is reflected in DoD's range preservation initiative that we ask your support for. It is essential for us to maintain the balance between the use of military lands for their uniquely military purposes and the need for environmental protection and species preservation. The readiness of our soldiers going into harm's way depends upon it, so we ask for your help with this important initiative.

TRANSFORMATION

Transformation. You have mentioned it, and you have fully supported it in the Committee for a long time; and for the Chief, almost four years now since he laid the marker down. We are transforming our Army even while we execute combat operations and prepare for future contingencies. This simultaneity is not only a necessity, it is an imperative.

We are transforming the business side of the Army as well as the operational forces, and we are transforming within the joint context not merely in a service centric manner. We have held steady to the azimuth established by the Chief, General Ric Shinseki back in 1999.

FUTURE COMBAT SYSTEM

In 2004, we request funding for the fourth of our six Stryker brigades to be fielded at Fort Polk, Louisiana, to the Second Armored Cavalry Regiment. We remain focused on the Objective Force with the restructured Comanche armed reconnaissance helicopter program. We are postured to successfully meet acquisition Milestone B in May for the Future Combat System or FCS. FCS includes the non-line of sight variant, the initial fielding increment which will meet the cannon requirements previously addressed by the Crusader program. We remain on glide path to field the first Objective Force unit in 2008 with an initial operational capability, IOC in 2010.

On the business side of the Army, we fully solicit your support for the DoD transformation package that would greatly streamline our operations and give us the flexibility to manage the Department in the most efficient manner. In the same vein, our business transformation initiatives are designed to achieve greater value for the taxpayer dollar.

RESIDENTIAL COMMUNITIES INITIATIVE

Our Residential Communities Initiative or RCI, which really has been championed by many of you over the years in this Committee, to privatize family housing continues to be, I think, an enormous success. By 2007, the Army will have established partnerships to bring every set of family quarters up to standard. We are able to do this because, with an investment of roughly \$600 million, we have attracted over \$7 billion in private capital. This is a tremendous value for the taxpayer and the soldier and we believe the model of how better business practice can help us with non-core functions such as housing.

We are seeking to apply the same manner and model of public-private partnership on a challenge of on-base utilities in our installations, consolidating all installation management under one command, centralizing Army-wide, contracting over \$500,000 per contract in our Army Contracting Agency. We are seeking to regionalize utilities contracting and achieve economies of scale that were not possible with our previous business management structure. Private capital would be required to fix the utilities infrastructure on our bases, and we are setting the conditions to attract it just as we did with RCI.

Finally, we are conducting what we call our Third Wave initiative, which seeks to eliminate all non-core functions currently consuming Army people and dollars.

Rest assured we will pursue these business initiatives in full consultation with you and the Congress.

From a risk perspective, balancing the risk associated with near-term modernization and mid-term transformation has required us to make some very tough choices. We have had to terminate or restructure numerous current force modernization programs to generate the capital to fund transformation. In a nutshell, our 2004 budget submission funds people, readiness and transformation at the expense of some of our infrastructure accounts in current force modernization. We have made judgments only after careful balancing of both the operational risk and the risk of not transforming to provide the capabilities the Army needs to meet the obligations of the mid- and long-term joint operational concepts that we are a part of.

SUMMARY

In conclusion, I wish to return to those who I mentioned first in these remarks, our soldiers. Their performance in Afghanistan speaks volumes: Dead of winter, landlocked country, toughest terrain imaginable, collapsed the Taliban regime, put al Qaeda on the run. It has been my privilege as it has been your privilege to visit them in Afghanistan and Kuwait, in Bosnia and Kosovo, all around our country. You couldn't meet a finer group of young Americans. They are flat out in my 40 years the best soldiers I have ever seen; and we all ought to be very, very proud of them. Rest assured they stand ready, along with our sister services, to accomplish any tasks ordered by our Commander-in-Chief.

Thank you for this opportunity, Mr. Chairman, to discuss

the 2004 budget submission of the Army. I look forward to your questions.

Mr. Lewis. Thank you, Mr. Secretary.
General Shinseki.

Summary Statement of General Shinseki

General Shinseki. Mr. Chairman, Congressman Murtha, first let me begin, Mr. Chairman and Congressman Murtha, by expressing my thanks to both of you and the other members of this Committee for the very generous opening remarks.

I have been a soldier every day for about 37 and a half years, and I have enjoyed every one of those days. I have done a few things in that period of time. I think the last four years will always be very special. But part of that privilege has been the high point of working with great patriots here in the Congress and, uniquely, with those members of this Committee who have taken a little bit of risk, listened to a description of what the future could be, and then gave us the support and the resources to generate enough momentum to come back to you and suggest that we had something going here. Then to again demonstrate your confidence in us and Secretary White's leadership has been phenomenal in helping us maintain that momentum. So, to the members of this Committee, thank you for your great support.

Mr. Chairman, Congressman Murtha, I am honored to join the Secretary today, as I have indicated, whose leadership and guidance has produced tremendous momentum for what we have been about in this thing called the Army Vision, my privilege in joining him to report out to all of you on the posture of the Army and its readiness today.

Today, soldiers, as the Secretary has indicated, are serving magnificently as part of a joint team with all of our other members, other uniformed services, tremendous young Americans doing terrific work defending our freedom in this war against terrorism and then preparing for any other contingency they may be called upon to do. In the Army alone, over 242,000 soldiers are deployed forward, stationed overseas someplace. Almost 133,000 of our Reserve Component soldiers have been mobilized at this point in the past 6 months.

All of you, the Secretary, and I have visited a good many of them. I have stood with them where they worked and trained, spoken with them as well, those who arrived back here at Walter Reed Army Medical Center. I have spoken to them candidly, had frank discussions with them about their sense of the Army's readiness to respond to the calls of this Nation.

The Army is ready. We have the best army in the world. It is not the largest, but it is the best. It is the best trained, the best equipped, and the best led.

But, as you all know, it is more than just about equipment. We have the best soldiers. Their determination and commitment are as firm as I can recall in all my years of service. They are immensely proud to serve this Nation. They will take any objective. They will accomplish any mission we give to them. I am proud of what I have seen. Soldiers are standing by in a hundred camps and stations waiting for orders, and they will fight, and they will win decisively this war on terrorism and

any other we might ask them to fight.

I am daily reassured of my assessment. America's Army remains the most respected land power to our friends and allies and the most feared ground force to those who would think about threatening the interests of the United States.

We want to project that degree of respect and readiness of this great Army we have today into the future. To do so, over the last three plus years, we have described a need to be more responsive, more deployable, an Army that is more agile and versatile, an Army that is as lethal as this great Army is today and more survivable but a lot more sustainable to reduce our foreign footprint.

Three and a half years ago, we knew that there was a war in our future. We didn't imagine what the situation would be today, but we knew there was a war some time in our future. We just didn't know when, where or against whom. The relative predictability that I guess we may say we got used to during the years of the Cold War, that relative predictability had given way during the 1990s to a continuing chaos of unpredictability. Voices inside and outside the Army suggested a need for change, and some of those voices were right here.

TRANSFORMATION

Because of that fundamental nature of change, it was more than just modernizing a platform or two. It asked for the Army to take a fundamental, comprehensive look at itself and make some decisions. We didn't call it modernization. We decided to call it Transformation because it was so broad reaching and would reach for a long period of time. With the unwavering support of the Administration and this Congress, we are transforming today rapidly to be more capable of dominating any future crises.

To mitigate the risk that is inherent in any comprehensive change, no matter the institution, we structured Army Transformation along three broad and mutually supporting vectors. There is a near-term, a mid-term and a distant far-term vector.

On the near-term axis, we preserve the readiness of today's legacy fighting force to fix the long-standing operational gap between the light and the heavy components of today's Legacy Force.

We created a requirement for an interim capability which has come to be called the Stryker Brigade Combat Teams. We are fielding six of them. We have described the requirement for six. We have put aside the funds to do that. That is on the mid-term axis.

And it is on the third and final axis that we are readying the Army for the long term. We are developing future concepts and technologies that will provide consistent capabilities of overmatch through the middle of the century.

Our Future Combat System Milestone B Defense Acquisition Board decision. This first acquisition decision comes up in May of this year, and we intend that that will be a successful event, and we intend to begin fielding the Future Combat System in 2008.

Our Secretary White has noted balancing these requirements

over time dictates difficult but prudent choices. Recognizing the constraints that come with finite resources, the Army has had to make and we believe we have made prudent calls on how to balance those risks. We have terminated and restructured programs to help fund Transformation to the degree we can from our own internal resources, carefully weighing the operation of the demands of today's missions while preparing for the future.

Your support, which has been vital, will continue to be vital as we explain to you why we are doing the things we are and to gain your understanding and support as we go forward.

FISCAL YEAR 2004 BUDGET REQUEST

The Army's fiscal year 2004 budget strikes the essential balance to maintain readiness throughout the Program Objective Memorandum, POM, period and beyond. We are confident that we have done that well.

We are already seeing dividends from our own investments in future readiness. Monies that we have invested in the last three years are generating technologies that are coming on-line early today: Superior body armor for dismounted soldiers today, robots in caves and antitank warheads on unmanned aerial vehicles today, unprecedented blue force tracking capabilities today.

Then, most recently, during the last joint exercise, the largest joint exercise in our history, something called Millennium Challenge 2002. With the help of the United States Air Force, the Army air-delivered a Stryker platoon onto a dirt strip in a place called Fort Irwin, California. Just three years after the Army described its requirement for an Interim Force, we are demonstrating increased strategic operational and tactical versatility that Stryker Brigade Combat Teams will provide to combatant commanders.

This summer the first Stryker Brigade Combat Team will join us on the war on terrorism. So it is not just about capabilities we intend to field in 2000 and beyond. It is also about enabling soldiers fighting this war on terrorism and preparing for any future mission we may give to them. It is about reducing the operational risk borne by our soldiers today and in the future.

PERSONNEL

Now, having said all of this, Mr. Chairman, people remain the engine behind all of our magnificent moments as an Army. That has been true throughout the 200-plus year history of this Army. It is true today. It will continue to be true in the future.

Their well-being is inextricably linked to our readiness. Thanks to your help on things like pay, health care, retirement benefits, housing and other well-being programs, we are doing better than ever at taking care of our people. Our soldiers, our civilians, our veterans, our retirees and their family members appreciate your support more than I can say. We are grateful for your unwavering, bipartisan leadership and for your unyielding devotion to our soldiers. With your continued strong support, we will win this war against global terrorism.

We will meet our commitment to our friends and allies. We will remain ready to contend with the unpredictability. There are certainly unpredictable events in our future, and we will transform ourselves for those decisive victories on future battlefields. You keep us the most respected land force in the world.

Thank you, Mr. Chairman. I look forward to your questions.

Mr. Lewis. Thank you, General Shinseki.

[The joint statement of Secretary White and General Shinseki follows:]

[GRAPHIC(S) NOT AVAILABLE IN TIFF FORMAT]

READINESS

Mr. Lewis. Mr. Secretary and General, normally, I don't ask questions at the beginning of the hearing but rather pass it on. But on this very special occasion--

General Shinseki, you have outlined the training and the fact that we are the best. Let me, if you will, first say to you that I can't tell you how proud I am to have this responsibility at this moment in our history to chair the Subcommittee of Appropriations that does the spending of money for our national security. But, having said that, when you are challenged, you need to be ready. But we also want to have confidence we can be successful.

So, General Shinseki, while all of us have been hoping over time for a peaceful option, it is my personal view that when some of our friends in Europe decide to walk away, they close the door that was that door. So, because of that, I ask you the question: If the President, the Commander in Chief, were to make a call tomorrow, are we ready and will we succeed swiftly?

General Shinseki. Mr. Chairman, you have asked a question about readiness to do the most difficult of missions that we think about, plan for and prepare for. And normally in our deliberations we talk about the word readiness in a variety of categories. We talk about training. We talk about new equipment. We talk about spare parts and maintenance of our systems. We talk about ammunition. We talk about the kinds of things that affect the morale of our people. It is only when we come to a major operation like this we roll it up into the one word about readiness.

So I will tell you that in September of 2001, when the President addressed the Houses of Congress, and those of us of the Joint Chiefs who were present, and indicated that there was a war being declared on terrorism and that there were other concerns with other actors who were not behaving in accordance with the best interests of our country and our friends and allies, the Secretary and I immediately, after that speech, put the Army in a wartime footing.

We directed the Army to increase its tempo of training, we increased the requirement to train with their weapons, increased the rate at which they would fire, increased the requirements for chem/bio training, continued the development of young leaders who would continue to fill leadership positions. It is as a result of the last 18 months' focused and dedicated effort that I answer your question about will the

Army be able to meet the call if the President succeeds unequivocally as a yes.

The Army is ready. There are lots of unknowns out there. Chem/bio is probably the toughest aspect of what we have to do to prepare. But in all of these things, the Army, over the last several years has invested to deal with those unknowns, whether it is new equipment in the chemical and biological environment that results in new suits, new masks, increased training.

But the answer to your question is, the Army is ready. If it is ordered to conduct this operation, it will do so decisively.

Mr. Lewis. Thank you, Chief.

Mr. Young.

MORALE OF THE TROOPS

Mr. Young. Mr. Chairman, thank you very much and thank the Secretary and the General. Thank you for being here.

I have had just very recently an opportunity to spend a lot of time with both of them and have talked about a lot of issues.

But I just wanted to make one comment for the record; and you have a good attendance here today, Mr. Chairman, so I am not going to use up a lot of time.

As you know, my wife and I spend a lot of time at the hospital at Walter Reed; and we try to establish a relationship with all of the soldiers that are wounded in Afghanistan or anywhere in the region and stay with them until they either go home or go back to their unit. And one thing that runs--a thread that goes through all of them is their enthusiasm for their training, for their leadership, for their equipment, and for the motivation of where they were and why they were there. I would tell you, to see these young kids with--missing an arm or missing a foot or a leg or in a brace of some kind saying, Congressman, how soon can you get me back to the fight--I mean, the morale is outstanding.

That is just a tremendous, tremendous accolade to you and all of your leadership, for those who lead these young kids into these areas of hostility. You have done a really good job.

I, for one, appreciate, General, very much your role not only in the recent activities but in that 37-year period.

Secretary White, I will tell you, he is tough. He tells it like it is, which is, you know, something that I appreciate very much. Because I am not very diplomatic. I just want to get right to the core of the thing.

But you have done such a really good job, and I am happy that you feel that this Committee has been very supportive. Because that is our direction, that is our intent, to make sure that our soldiers have the best training, that they have the best equipment, that they have the best planning and that they aren't sent off on wild goose chases to do something and risk their lives for something unimportant. They are doing something extremely important, which is crucial to the survival of our Nation as we know it.

So I just wanted to take those few words to compliment both of you and your leadership team that have provided this tremendous education and leadership for these young kids that

serve in our uniform. I appreciate it very much.

Thank you, Mr. Chairman.

Mr. Lewis. Gentlemen, you both mentioned the fact that this Committee operates very much in a nonpartisan fashion. That is in no small part--that is due to the work I have the privilege of doing with my colleague from Pennsylvania, Jack Murtha. Jack.

FISCAL YEAR 2003 SUPPLEMENTAL FUNDING

Mr. Murtha. There is only one concern I have, and that is pay. I understand that the Army is going to be in bad shape if you don't get a supplemental by May.

Now tell me the technical--you know, the services say this, and then they seem to find a way to get by. Technically speaking, when are we talking about a deadline here? What is the answer to this pay problem, Mr. Secretary?

Secretary White. Well, on the--actually, the OMA appropriation, the operation and maintenance appropriation, is really a shorter fuse than the personnel accounts. On the OMA appropriation, we are looking at the end of April where we are going to need a supplemental help beyond our share of the omnibus appropriation. The military personnel side is roughly June. So in both cases, as opposed to last year where it went later in the year, because of the scale of mobilization and the scale of the activities, we are on fairly short fuses on both accounts.

Mr. Murtha. Mr. Secretary, every year we hear this, and then somebody gives you orders that you have to find a way to pay it. When is the deadline? Tell us when we have to have a supplemental so that you would run out of money and you couldn't pay the troops.

Secretary White. I think that, well, in terms of paying people, June. In terms of operations and maintenance, before that.

Mr. Murtha. So we would have to have a supplemental passed in May in order to pay the troops and O&M. You can't use the Feed and Forage authorities to get by.

Secretary White. Well, you could. But I think the most preferable solution and assuming that the supplemental will be here shortly, as you can imagine, there is intense work going on on this. But we would like to see it pass before the Easter recess.

Mr. Murtha. That is all I have, Mr. Chairman.

Mr. Lewis. Thank you, Mr. Murtha.

Mr. Hobson.

REMARKS OF MR. HOBSON

Mr. Hobson. Thank you. I won't be quite as quick. I haven't written a book like Jack has. First of all, Mr. Secretary, General Shinseki, I want to thank you for your service. You have persevered under some difficult times, both of you; and all of us are appreciative of what you have done.

I just have--and I have a number of questions I will do for the record. But I have four things I would like to talk about.

When we were in Kuwait, one the most serious--we always ask

everybody, what do you need? What do you need to get this done? The number one critical thing that we heard was bandwidth. I don't have enough. And they are buying--and there are some other things in that theater we could talk about. But I want to go into three other things real quick.

I am concerned--I have another hat I am now wearing that relates to civil work in the Corps of Engineers. I am concerned about what is going to happen to the Corps. Actually, if you look at the money, you don't get a new pocket of money if you get rid of the Corps.

Thirdly--I can't give this up, guys, even though I am not the chairman anymore of military construction. MILCON is close to me. As you know, the housing and things of that sort. I am not the chairman now, but I am concerned that MILCON has been put on hold, and I am wondering where that money is going or going to go or not go.

Lastly is a thing that I think they need over there. There are some things called hemo coolers which are--we can't kick out the combat medical support--which is a system for taking blood and keeping it at a temperature. And we have tried. And you are going to call all of a sudden and want all of these things, and they are not going to be ready because we can't kick the money out of the combat support medical procurement staff at Fort Detrick.

So those are real quick things.

ARMY CORPS OF ENGINEERS

Secretary White. Let me talk about a couple and let me defer the bandwidth discussion to the Chief on the operational side.

As far as the Corps of Engineers is concerned, I think they do a magnificent job, in my opinion. If you were to look--you have just been in Kuwait--at all of the construction that has gone on there to properly bed down and build up this force, that is the Corps of Engineers. If you were to look at the Port of Beaumont and Corpus Christi where I was a week ago and look at the relationship between the Corps and the port authorities to deploy major units through those two ports, in my opinion and in times like this, the Corps is worth its weight in gold. The fact that we can have that capability there largely funded by the civil works appropriation is, for me, a great deal.

Mr. Hobson. And it doesn't cost you any money.

Secretary White. Right. I think it is a great deal. They have done a wonderful job.

MILITARY CONSTRUCTION (MILCON)

On the MILCON fund front, we have funded it at \$1.7 billion, a little over that. You plussed it up last year, which we deeply appreciate. We are focusing on barracks and the bills necessary for Transformation, and that is what we could afford, looking at the total budget. We have worked a whole series of things in getting the force ready to be in position should the President so order it in the Persian Gulf, not only on the medical side, but radios and all sorts of other things. I am sure you saw that when you were there.

HEMACOOLERS

I will have to get back to you on the specific issue that you brought up about the hema cooler.

[The information follows:]

The U.S. Army Medical Research and Materiel Command at Fort Detrick is actively moving ahead with this important technology. The Command received \$250,000 in research and development money in April 2001 for development of a low-power blood cooling and storage device. That money was provided to Energy Storage Technologies, Inc., of Dayton, Ohio, in the form of a cooperative research and development agreement. Energy Storage Technologies completed development of the device and provided a briefing to the Army on a prototype device on March 4, 2003. Testing is required on the device before a full production contract can be awarded.

BANDWIDTH

Mr. Hobson. Chief, do you want to talk about bandwidth?

General Shinseki. I will.

Congressman, bandwidth really has been an issue for as long as I have been in the Army. Even with radios. We had to manage frequencies because of the demands for bandwidth and in place. What we had to do was you discipline the force on the available spectrum that you had, and you allocated it, and we managed inside that limitation. What has happened to us was the demand.

Mr. Murtha. Excuse me. If the gentleman would yield, don't you have to buy that, though, from the commercial side?

General Shinseki. No, it was allocated to us, and we operate it.

Mr. Murtha. But aren't you also buying commercial? Yes, sure you are.

General Shinseki. Yes, we are today.

Mr. Murtha. Big cost out of O&M.

General Shinseki. Yes, we are today. But the appetite for bandwidth, because it is less specified in terms of frequencies, is significant. What we need to do is take a good hard look and understand what it is we need and prioritize that for what are the most important military functions we have and then declare what additional bandwidth is going to be required to do what, and some of that is work we have to do.

Mr. Hobson. They tell us we need another satellite positioned better. That is something we need to work on. I don't know if we can fix it short term here, but it is something we all need to think about. Because this is becoming a major part of your operation, the seamless communication between everybody, and if we need it we need--I think what we are trying to point out is these people feel long term they need additional capability that you don't have to buy, sir.

General Shinseki. Yes, sir.

Mr. Lewis. Thank you, Mr. Hobson.

The Committee has long had the support of our Chairman and the Ranking Member of the full Committee. Without their help, it would be hard to get it done as we try to do, so it is my privilege to call on David Obey, Ranking Member of the full

Committee and in service here.

POST-CONFLICT REQUIREMENTS IN IRAQ

Mr. Obey. Thank you, Mr. Chairman.

First of all, General, let me simply say I fully agree with the statements made by the Chairman about your service. You are a first-rate professional, and I think Members of Congress respect the fact that you are a straight shooter and will give straight information. That is pretty rare on either side of the table in this institution.

Let me ask--and I don't want to get into the question at all of whether we should or shouldn't deal with Iraq. That is not where I am going at all. I just want to look at some questions in terms of the adequacy, the size of our forces over the long haul; and let me ask three questions, roughly.

First of all, in Iraq, if things go less well than we would like, if we don't have large-scale surrender of Iraqi troops, we don't see a lot of white flags, if we wind up having to kill a lot of Iraqi soldiers and if we have got a lot of ethnic fighting going on at the same time, what kind of troop levels do we think would be required to maintain the pacification effort?

General Shinseki. As you know, Congressman, there is a plan in place with a troop list that has been identified by our combatant commander; and that troop list addresses all of the possible scenarios he anticipates that it could take him to get to his final set of objectives.

Mr. Obey. Let me say I am not talking about how many troops we need to, you know, to go in there and do what is needed. If things turn out a lot rougher than we expect and hope--and I don't think they will be, but if they do--what numbers are we talking about on the pacification end after the--after we have taken the place?

General Shinseki. The post-hostilities period?

Mr. Obey. Yes.

General Shinseki. Well, again, you know, the best person to answer this is the combatant commander who is in the process of planning that as a follow-on phase to his current operation. The troop list for his current operation also presumes that there is going to be a follow-on phase that he has to begin process of transitioning through, and the troop list that he has declared makes that transition.

What the final numbers are when they settle out here could be, as I have suggested, could be a high-end number. We would all hope that it was something less. But these are----

Mr. Obey. Well, what is the high-end number?

General Shinseki. Well, it is a number that was provided a couple of weeks ago, I believe, it could be as high as several hundred thousand. But, again, what goes into determining that kind of number----

END-STRENGTH REQUIREMENTS

Mr. Obey. I understand. What I am getting at is this, we have got a lot of places where we might have to use troops. I mean, we have got Iraq, we have got Korea, we have got other

problems, minor problems, to say the least. I guess the question I am getting at is, when you look at the strain on regular forces and if you look also at the heavy use of Reserve and Guard forces, do we have an Army that is large enough to do the job that we might be called on to do over the next 5 or 10 years? What is your judgment on that?

General Shinseki. Well, for the last three and a half years in testimony, Congressman, I have been consistent about describing the Army as smaller than the mission profiles that it has carried, and that continues to be true today.

Mr. Obey. I mean, my--I don't know what point it is where we get to the point where the Reserves--I mean, given the surprises that we have delivered to a lot of people in the Reserve forces, I don't know how many of them we are going to keep when this operation is over. So I think we really need to have a frank discussion about what size our active force needs to be and I guess what would be your best professional judgment about what that level ought to be, say, five years from now if we were to be comfortable with having adequate force to do whatever job we might be called on to do.

General Shinseki. Congressman, I am sure there is a right number out there, but there are also a lot of numbers that could be off the mark.

I think if there is ever a time that we would have the best possible basis for answering that question, looking at what this--all of our services--but in the case of the Army what we have done here through the 1990s and at this particular point in time where we are dealing with a war on global terrorism, operations that have us in a variety of places, the potential operation in Southwest Asia and a potential growing crisis in Korea--potential, I say--I think looking at what our responsibilities are to provide responsive options to our leadership, this is about as good a time as it is to get to some good numbers.

The Secretary indicated part of this is answering the questions about do we have the soldiers who are on active service today filling the right positions. That is part of the answer.

The end-strength answer, as I have testified over the last three years, is that the Army is smaller than the mission profile that it carries. So there is a piece here that deals with end strength.

ACTIVE AND RESERVE COMPONENT MIX

But there is also the piece that you are suggesting, that is, the right mix between our active and Reserve components. We have relied on our Reserve components far more heavily than I believe anyone intended when they designed this program. But they were always seen as this strategic capability that in the case of an unanticipated requirement where we needed immediate response that the Reserve components needed to fill that transition for us. They have done that magnificently in this requirement for additional formations on short notice and many of them on very short notice. We have asked them to move, and they have done it magnificently.

Secretary White. If I could add a couple of things to that.

There are a lot of dimensions to this. One, obviously, is

the Secretary of Defense has talked about the overall posture of the force in Europe, the overall posture of the force in Korea and how much of it going forward needs to be forward stationed and what changes and changes in posture can we make to take advantage of the strategic situation we face going forward.

As the Chief said, the whole business of the Active component/Reserve component mix--there are units in the RC today that have been repeatedly mobilized over the last three or four years, military police, the MP units, for example. The question is, does that mean we need more MP units in the active component going forward because you can't continue--we have had MP units that were mobilized 9/11/01 to 9/11/02, demobilize, and some of them are being recalled again. So there is a broad range of work going on right now within the Department of Defense involving us, obviously, and the combatant commanders to get this mix right and the posture right going forward.

Mr. Obey. Well, I guess all I would say in closing is that I know that in the New York Times of March 12 an article appeared which said this: Independent Comments. James F. Dobbins, who served as special envoy to Afghanistan in the current Bush administration, said that even the lowest suggested requirement of 75,000 troops to stabilize Iraq would mean that every infantryman in the U.S. Army spend six months in Iraq out of every 18 to 24.

Then it goes on to talk about the costs associated with that. And I guess the question I would simply raise, sitting here knowing the Budget Committee is marking up their budget resolution today, is it seems to me if we have this kind of potential and the other long-term needs of our Armed Forces, not to mention what is going on on the domestic side, but we ought to think seriously about whether we can afford any tax cut at this time. I don't expect you to get into that, but that certainly--I think any prudent person would raise additional cautionary flags about the advisability of a tax cut at this time.

Thank you, Mr. Chairman.

Mr. Lewis. Thank you very much, Mr. Obey.

Mr. Nethercutt.

COMBAT FEEDING PROGRAM

Mr. Nethercutt. Thank you, Mr. Chairman; and welcome, gentlemen. Pleased to have you; and thanks to your team behind you, too. I know it is a joint effort here.

Secretary White, I want to talk with you about the combat feeding program for a minute. The Army is the executive agent which provides one-stop shopping for all the DoD feeding requirements from procurement or research through procurement. It is a small program, but it is an important one to the soldiers in the field and the personnel in the field.

Congressman Frelinghuysen and I have actively supported the program over the years. Despite our efforts, there has been a cut by the Army in funding to the program; and we perceive there to be additional management bureaucracy attached to it.

Last October, you sent me a letter saying that the Army intends to fully restore funding in the upcoming POM upon

validation of requirements for fiscal year 2006 to 2009. My understanding is that not only was the funding not restored but that funding in fiscal year 2004 was cut another \$550,000. Is that your sense of it? And it may be too precise to recall.

Secretary White. I will have to get back to the record for that. I am sorry, but I don't have the facts right at my fingertips.

Mr. Nethercutt. That is fine. We just think that the current program structure should be maintained. I think Mr. Frelinghuysen and I agree with it, and the Committee has adopted that position as well.

Secretary White. Thank you. I will look at that and get back to you.

[The information follows:]

The Army still intends to restore the research, development, test, and evaluation funding for the combat feeding program. We see no evidence of any \$550,000 cut in the fiscal year 2004 program. However, Congress directed a fiscal year 2003 cut in the Congressional marks and language for reduced program growth. The combat feeding program falls under the Combat Feeding, Clothing, and Equipment line. Within this line are four other soldier-related projects. Since the Congressional language did not specify which program to decrement, a percentage of the \$4.2 million was taken from all five projects within the line. The field feeding program percentage was calculated to be \$87,000.

LAND WARRIOR PROGRAM

Mr. Nethercutt. Let me ask you about Land Warrior. This year the Army is proposing to take a significant step forward with the Land Warrior program. There is a request of \$97 million to begin acquisition and it was zero before. And over the Future Years Defense Program, the FYDP, we are going to look at \$772 million and another \$552 million in research. I wonder if there have been any changes that you can articulate to the Committee with the prime contractor on Land Warrior. I am wondering what the Cox technologies--what will be used for this system and what the program architecture will be; and that may be too technical for you right at this moment. I know you have got your hands full on other things, but I know there are a number of competing technologies available for incorporation into the program, and I am interested to know what your sense of the program, the future, will be.

We are committing, it looks like, \$1.2 billion for the program over the long haul without being sure exactly what the latest iteration of the Land Warrior will involve. Is that something you can respond to now or would you prefer to later?

Secretary White. In addition to providing detail for the record, Land Warrior is an integral part of the Objective Force. We are pursuing to make the individual soldier an integral part of the Objective Force and give them extraordinary capabilities. And consequently we have given it very, very high priority in its development. I don't know that we have made for the 1.0 version specific technology selections yet, because we haven't in broader Objective Force in the Future Combat System. But as you can see from the way we have funded it, we consider it to be tremendously more important,

and I will get you more detail for the record.

Mr. Nethercutt. That would be great. I hope you will look at the technologies because I have an interest in it, a strong interest in it, and hope that these technologies could be pursued.

[The information follows:]

Although full functionality of the Land Warrior initial capability system was achieved during developmental testing, overall developmental testing results and low demonstrated reliability in an early functional assessment indicated that this system would not likely be reliable enough to enter operational testing as originally planned. As a result, the program is now concentrating on developing a reliable system for meeting the Land Warrior system requirements for Stryker integration and will not produce any units in fiscal year 2004. The Army is working to re-designate the fiscal year 2004 Land Warrior procurement dollars to support additional Land Warrior research, development, testing, and evaluation as well as procurement of items under the Rapid Fielding Initiative.

The Army competitively awarded General Dynamics Decision Systems (GDDS) the Land Warrior prime contract on January 30, 2003. GDDS has total integration responsibility for Land Warrior and will consider technologies as they become mature for integration in the Land Warrior to meet operational requirements. GDDS will take advantage of components available from government agencies, internally designed, and commercial off-the-shelf components and technologies. This approach minimizes the use of Land Warrior-unique hardware and software and utilizes an open system architecture to provide greater flexibility to incorporate technology upgrades, reduce intellectual and proprietary rights issues, and reduce developmental and support costs. Looking to the future, the Land Warrior advanced capability will incorporate mature technologies from the Objective Force Warrior science and technology advanced technology demonstration and emerging commercial technologies to provide the Objective Force soldier with advanced capabilities in lethality and survivability.

Mr. Nethercutt. I would just say two other things if I may in the quick moment that I have left. I appreciate, General Shinseki, your comments about a year or so ago about a spray cooling technology in the Future Combat System, the value of that technology in the future platform acquisitions for the Army and other services as well. I think it has great potential and I hope you still feel that way, that it has potential.

General Shinseki. We do.

COMANCHE HELICOPTER PROGRAM

Mr. Nethercutt. And finally I would just ask if you could for the Committee summarize an update about the Comanche. I know there have been numerous restructurings. Are we at the last restructuring for Comanche? I am interested to know what the status of the program is.

Secretary White. We in the past year, culminating in a Defense Acquisition Board review, have done an extensive review of Comanche. We brought in outside people to take a look at it. And where we came out was, number one, we are focusing squarely on the armed reconnaissance version in the first three blocks

of the aircraft because our most pressing need is an armed scout for the Objective Force that would replace Kiowa Warrior. Second, we have changed the structure of the Sikorsky-Boeing team into a single program office. Third, we have rebaselined the program into what I think--for the last time, I might add, into a program that is achievable on the timelines that we needed to be. And we have fully funded to our cost estimates not only the 2004 budget but in the program out to 2009 when the initial fielding would be the program and it is time to deliver Comanche as an integral part of this. And we took it through the Defense Acquisition Board. Everyone has agreed on it and we are off and running. We are going to deliver this helicopter. It is critical to the Objective Force.

Mr. Nethercutt. I agree and I hope we can get a status report. I may have a question that I might want to just add for the record, if I may, Mr. Chairman; more technical, just some benchmarks report. But thanks so much for your testimony. Thank you, Mr. Chairman.

[The information follows:]

Extensive Army and outside reviews of the Comanche program over the past year culminated in a Defense Acquisition Board review. As a result, we have focused the program squarely on the armed reconnaissance version in the first three blocks of the aircraft because our most pressing need is an armed scout for the Objective Force that would replace the Kiowa Warrior. A second result was the creation of the joint Sikorsky-Boeing program office in an effort to improve cooperative development. The third major change was rebaselining the program into an evolutionary approach with affordable and achievable timelines. I believe this is the last time we will need to restructure this program.

The Army sent Congress a quarterly report on Comanche this past February and will send additional reports at the end of April, July, and October 2003. We fully funded the Comanche program to our cost estimates not only in the fiscal year 2004 budget, but also in the out years to initial fielding in fiscal year 2009. We are going to deliver this helicopter. It is critical to the Objective Force.

Mr. Lewis. Mr. Dicks.

STRYKER BRIGADES

Mr. Dicks. Well, I want to welcome General Shinseki and Secretary White and I want to associate myself with the remarks of the Chairman and the Ranking Member about the service of General Shinseki who I think has done a fantastic job. And we have watched out at Fort Lewis the first two of these Stryker Brigades, and looking forward to seeing this program completed.

I just would mention that section 8121 of the Fiscal Year 2003 Defense Appropriation Act requires the Department of Defense to program and budget for no less than six Stryker Brigades. Now I understand that there is some question about this; that we have got approval now on the first four; but the last two, the Department is still reviewing it or studying it or doing something. Can you advise us on that?

Secretary White. Yes, sir. As I said in my opening comments, the fourth of the six Stryker Brigades is in the

fiscal year 2004 budget, Second Armored Cavalry Regiment at Fort Polk, and the money to support brigades five and six is in the program, the fiscal year 2004/2009 program.

Mr. Dicks. Where is five and six going to be?

Secretary White. Five is Hawaii, 25th Division; and six is in the National Guard in Pennsylvania. We have been asked by the Secretary of Defense to complete a study that looks at whether modification should be made to the design of the brigade to (a) make it more of a transformational step, make it look more like a unit of action--for example, the addition of aviation and perhaps other things; and then (b) to look at the stationing of brigades 5 and 6. We all report to the Secretary of Defense on that. We intend to complete that in the near future and send it up to him.

My view is brigades five and six are imperative. We need those six brigades. I also think it is imperative that the National Guard get brigade six. We have never been more One Army than we are today, as you know, from being numerous places in the world, and we need to have them a part of Transformation, and brigade six does that. So it is in our program. We will do the study and have further discussions with the Secretary.

Mr. Dicks. If you made decisions to add capability to five and six, I would assume that at some later date those capabilities would be added to one, two, three, and four.

Secretary White. Well, you could do that or----

Mr. Dicks. Spiral----

Secretary White. You could say certainly we are going to improve one through four over time, and spiraling as Objective Force technologies come along. As we are fielding our units of action on the Objective Force side, we will look to infuse, where it is appropriate, those technologies into the existing force which obviously would include brigades one through four.

FUTURE COMBAT SYSTEM (FCS)

Mr. Dicks. Tell me about the status of the Future Combat System. You have mentioned that in your remarks and Congress--as I understand, the fiscal year 2004 budget includes \$1.7 billion in Army research development and funding. Can you give us a little more feeling about the Future Combat System and how that is going to work?

Secretary White. Yes. The Future Combat System is a system of systems. It includes 19 different systems: manned, unmanned, air, ground, Land Warrior for the individual soldier, and, most importantly, the network that ties all of this together into a Network Centric Force. We have sent out requests for proposals for 24 different technology packages to support this. Industry is going to give us a tremendous response. I think we are going to get back over 300 proposals from industry on this.

We will package those together into an increment, one that will be the first installment as we roll this out. We will look at the analysis that indicates that increment one makes sense to do, that it is affordable and that the technical risk of fielding it in 2008 makes sense; bring all this to a Defense Acquisition Board decision in May, and proceed in a system design and development from there forward. So it is on track.

We focused our science and technology, S&T money along with the Defense Advanced Research Projects Agency, DARPA to keep this on track, and the next three or four months are critical between now and May to get this through a successful task.

Mr. Dicks. I yield to Mr. Murtha.

Mr. Murtha. This is going to be coordinated with the Navy and Air Force?

Secretary White. Yes, sir; absolutely. And this force is designed to work in a joint environment.

Mr. Dicks. Let me finish this up Mr. Chairman.

Mr. Lewis. One more question.

FUTURE COMBAT SYSTEM--KEY TECHNOLOGIES

Mr. Dicks. Thank you, Mr. Chairman. What are the areas of emphasis on these various technologies that comprise Future Combat System? What are some of the things we are talking about?

Secretary White. Number one----

Mr. Dicks. The 24 Requests for Proposal, the RFPs and all that.

Secretary White. Right. The network and how all of these interrelate from a software, computing, communicating structure, number one. Number two, a common theme through this is our robotic technologies. The Crusader program had an automatic loader that we have transferred over. I think that is critical. Third, logistics economy. We are seeking to make this force as significantly a lower logistic burden than the existing force, so we are focusing on that. Four, survivability technologies that will give us equivalent survivability of a heavy force today at far lower weight. Fifth, intelligence and sensor packages. We have an operational concept for the Objective Force that says we are going to see first, we are going to decide first, then we are going to act and close decisively. There are technology packages that focus on the ``see and decide'' in this thing that I think are fundamental.

General Shinseki. Let me just add, Mr. Chairman, if I might, the Secretary has outlined for you a very, very aggressive program, and the \$1.7 billion, Congressman Dicks, that you talk about in fiscal year 2004 is really a fiscal year 2004 piece to an effort that has been underway for about 3 years. If you look at the President's budget in 2001, 2002 and 2003, there were decisions made that moved on the order of \$12.5 billion into science and technology. That has already been underway that is going to deliver here in the next year or so the kinds of capabilities that the Secretary outlined.

You all put about another \$3.2 billion into the Army's accounts to sort of jump-start and give us momentum. So we are talking here about \$16 billion of effort already accomplished; \$1.7 billion is the fiscal year 2004 piece, and that \$1.7 billion breaks up into about three big bins: manned platforms, unmanned ground, and aerial platforms. So those are two, about a third each of that \$1.7 billion. And the third is a network that makes them capable of acting in a synchronized manner. That investment is important because it then allows us to deliver that fiscal year 2008 capability we are focused on.

Some of this plays back to the questions that Congressman

Murtha asked about a supplemental. If we are not able to take care of our 2003 requirements, as you know, what happens is we start looking for flexibility in other accounts, and when that happens to be this investment in the future, you begin to unravel in 2008. So these are fairly well-knitted-together and balanced priorities, and our ability to deliver the assurances in May that our Future Combat System Milestone B Defense Acquisition Board is on track, very much tied to being able to hold the \$1.7 billion in research and development that is itemized for 2004.

Mr. Dicks. Thank you, Mr. Chairman.

Mr. Lewis. Thank you Mr. Dicks. I kind of failed the Committee at the very beginning, for I promised myself in the future that I am going to say to all of those who are willing to listen, who are present, if we have any cell phones, ``Blackberries'' or any other kinds of berries in the audience or otherwise, they should be turned off. They can be heard in the hall, but otherwise not in this room.

Let's see. Mr. Cunningham.

Mr. Cunningham. Thank you, Mr. Chairman. Jack, The Predator, is made in my district.

Mr. Murtha. That is right. That is absolutely right.

Mr. Cunningham. We need additional money for production of Predator B's that will go to Iraq.

Mr. Murtha. The more I see about it, the more I agree with you. It is marvelous.

Mr. Lewis. You are doing real good, friend.

ENVIRONMENTAL RESTRICTIONS ON TRAINING

Mr. Cunningham. You raised a question on Comanche. My concern is it has been 20 years in production. When I was still on active duty, we were talking Comanche. And I know the Russians, they have got some pretty good capabilities with their helos as well. And my concern is if it has taken 20 plus years to develop, are we still putting any modern technology into these helos? And so I want to follow that.

Camp Pendleton is located just north of my district. The Marines literally go in off the beach in their amphib. But they have to assemble as a group once they hit the beach, and go through a narrow corridor because there's gnat catchers on both sides of them. They can't make a full plus assault. They can't dig foxholes. They can't do lot of combat maneuvering. They are training in some areas where they are limited to pushing--literally walking with boxes, acting like tanks. Is the Army at its bases facing similar restrictions in training?

Secretary White. I think we all are, Congressman. That is why the Range Preservation Initiative which is the Department of Defense-wide initiative which basically is aimed at giving us the flexibility to sustain training fundamental to readiness, but, at the same time, being good stewards of the environment is critical. What tends to happen is that the laws are litigated in the courts. The solutions tend to become extreme and that produces highly restrictive situations like the one that you referred to.

Mr. Cunningham. So you would say those conditions do exist today on restrictions and training?

Secretary White. Yes.

Mr. Cunningham. And you need our help.

Secretary White. Yes.

Mr. Lewis. If the gentleman would yield for one moment.

Mr. Cunningham. Absolutely, sir.

Mr. Lewis. To that point, the National Training Center for the Army is located in the Great Mojave Desert, no longer in my district but nonetheless the most important training center in the world, was held up by way of expansion for years and years regarding the desert tortoise. The reason it was held up was because the only healthy population of the tortoise that could be found in the whole region could be found on the base, because the Army was better stewards of land than our other agencies that are involved.

There is enough territory there for four Eastern States. And for well over a decade, some of us have been calling upon them to plant eggs out in that east Mojave to revitalize that population. There is absolutely no consideration of that, while in the meantime the stewards get kicked around who happened to be training these fine troops that we are talking about on that very fine base. Thank you.

RESERVE COMPONENT PAY

Mr. Cunningham. Thank you, Mr. Chairman. I have another real problem. My district director in San Diego is a Marine Corps Reservist. And he is being called up to deploy to Iraq. Our office is going to lose him to a deployment. And during Team Spirit, I was the CO of a unit that was responsible for that exercise, and we used a lot of Reservists to supplement Team Spirit in Korea. And the problem is that when my reservist goes from working for me to the Marine Corps, he cannot even make his house payments on the Marine Corps pay. I have come to find out that we as Members of Congress can't supplement that.

Secretary White. Can't?

Mr. Cunningham. Cannot. And I am looking for bonuses, anything I can to support this young man and his family. And I know that other Reservists lose pay when they go to the Reserve active duty, and I just need your help and the Members'. That it is something I think that we ask thesemen and women to go over, and yet when they do and when they sacrifice for this country, they can't even meet their house payments. And you know as well as I do, one of the things they want to know when they are overseas is that their families are doing okay.

Secretary White. That is right.

Mr. Cunningham. So I think it is an area that in Congress we really need to take a look at. I don't know what the complement should be with looking at the new scenarios with all the services in Reserve and Guard, but that is one of the areas that really started bothering me when I looked at my own district director, that he couldn't even pay his house payment.

Secretary White. There is significant economic hardship. It depends on where you are. If you work for a private sector corporation, a lot of times they will equalize the pay. I rode around in Afghanistan, Pakistan, in a Guard C-130 where the crew all worked for Northwest Airlines. And Northwest Airlines equalized the pay so that there wasn't economic--but that is

not a uniform deal. People that own their own businesses, run their own businesses, are particularly hard hit by this. So there is significant economic hardship to the extended mobilizations.

IMPACT AID

Mr. Cunningham. The last thing I would say is that many of us feel that the President was wrong on reducing Impact Aid for those people that live off base, and we have a caucus that I am sure will override the budget and put that money back in to take care of our troops.

I yield back.

Mr. Lewis. Thank you, Mr. Cunningham. By the way, every President this century has eliminated those Impact Aid monies because they know the Congress will put it back in. That is a kind of game we play.

But in the meantime, the ever-patient Mr. Sabo.

NON-LINE OF SIGHT CANNON (NLOS-C)

Mr. Sabo. Thank you, Mr. Chairman. And Secretary, General, welcome to the Committee.

A year ago this Committee was struggling with the issue of the Crusader. In the end we added some money, stopped the Crusader, but provided \$370 million to continue deploying an indirect fire system, including a deployable chassis. What has happened with the Congress past last year and in consultation with the administration?

Secretary White. The progress has been excellent. We are in the midst of executing the 2003 program. We are transferring the Crusader technology, the robotic loader, the cockpit, all the other pieces of this. We will have a cannon system on the common FCS chassis, and I expect that it will be an integral part of increment one, and we will begin fielding in 2008. So I think it has played out exactly the way we hoped it would as the program was restructured last year and as Crusader was terminated.

Mr. Sabo. One of our concerns was the question of how one would integrate a fairly large artillery piece on a lighter chassis. How is that problem working out?

Secretary White. Well, I think it is fair to say that on a 20-ton chassis as opposed to a 37-ton system, a Crusader, that you won't get the same caliber-length gun, and that you will probably carry fewer rounds; but we will still have an enormously capable artillery piece to get after the fundamental fire support requirement that remained valid and was recognized as valid when Crusader was terminated. Precisely what that will be we will know a lot more of as we go through Milestone B here in a couple of months, but I expect that this will be a very successful development.

Mr. Sabo. When we acted last year, we put the management responsibility with the same program that had been charged with developing the artillery system, and my understanding is that for 2004 the Army is requesting or proposing combining this funding with the Future Combat Systems. Why is that and what is the impact of that?

Secretary White. Well, I don't think it has got any impact on the development of the cannon variant of the Future Combat System. It is just that because they are all going to be on a common chassis, we wished to manage this as an integral part of the family. But the pieces of it, the digital cockpit that was developed, the gun-cooling technology, all the other things that we had invested in in the Crusader program, will be an integral part of the NLOS cannon variant and it will go on the common FCS chassis.

FISCAL YEAR 2003 SUPPLEMENTAL

Mr. Sabo. Thank you. One further question, Mr. Chairman.

We don't know the size of a supplemental, but could you give us some idea in terms of the additional cost? I expect there will be two parts to that, and one is the cost for deployment; and then, secondly, whether there is or isn't combat, a different type of supplemental--but simply for the deployment of the additional funds that are requested, how much of those funds that are required go directly to the services ratio-wise versus those going to outside contractors that we hire?

Secretary White. I will have to get back to you in terms of the split because the contractor is going to be largely in the O&M part of the supplemental. The supplemental will be, or our request for it is about a little over 90 percent, I would say, of either military personnel or O&M, and I will have to get back to you with the breakout. And the supplemental hopefully will be here shortly and we can make it more specific.

Mr. Sabo. Are those cost-plus contracts?

Secretary White. Sir?

Mr. Sabo. Are they cost-plus?

Secretary White. I suppose it depends on precisely what part of it you are talking about and for what service; whether it is construction, emergency construction, or whether it is operation of food service or whatever. But I will get back to you with more detail for the record.

Mr. Sabo. Thank you.

[The information follows:]

Based on current planning assumptions, up to one-third of the Army's supplemental funding may be provided to support contract requirements in the Operations & Maintenance and Procurement appropriations. Specific requirements, especially for reconstitution of the force and recapitalization, cannot be predicted at this early stage.

Mr. Lewis. Thank you. Mr. Frelinghuysen.

Mr. Frelinghuysen. Thank you, Mr. Chairman.

Thank you both for your service to our country, and in particular, General Shinseki, thank you for your leadership. Thirty-seven years ago I had yet to be drafted and you were already there. And it is incredible to think of that length of service to our country, how proud you must be. We are proud of you.

General Shinseki. I am. Thank you.

ARMY COMBAT POWER

Mr. Frelinghuysen. Our all-volunteer--and we haven't heard that term here this afternoon--military has done us proud. And for all the talk years ago about what might have been the caliber of the young men and the women as an all-volunteer force as not meeting the mark, those myths and concerns have been dispelled or debunked. I think you and your colleagues have done an incredible job, particularly, and it has been mentioned, melding the Active and Reserve. It wasn't easy. There were characterizations about Reserves and Guard, and I think those characterizations today as a result of your leadership and your predecessor's has been removed. There is more professionalism, better training, better pay. And I like to say when I am on the stump, that the Army in particular, but the military generally, is the greatest equal opportunity employer in the Nation.

I don't think the military gets credit for it. And maybe this is in the way of an advertisement because the Army is here, the Army never really gets credit for being the largest part of that equation. As you have said on other occasions testifying and in my office, you have more troops ready to go literally today than any other service--and we are not in the business here of beating up on other services--and you have more boots on the ground.

I want to just put out a general question that might be considered to be a softball, but relative to the issue of boots on the ground, often around this table we talk about the term ``overwhelming superiority,'' and maybe that has to do with the excellence of our Air Force and the overwhelming power that they deliver.

Can you talk a few minutes about the Army's part of that equation? Because I think sometimes the Army is too modest about what it does, and in some ways has allowed some of our fellow citizens to think that wars can be won without losing lives and that wars can be won by overwhelming air superiority.

I don't forget the Marines either. His lips didn't have to move. I knew that if there was a whisper--the Ranking Member, for the record.

General Shinseki. Congressman, no question how proud the Secretary and I are of our service, but we are also very, very proud of the services that stand with us--the great Air Force we have and Navy and Marine Corps. But ultimately the issues that we deal with are the issues of people, and they continue to reside on the ground and ultimately this gets resolved by, as we say, boots on the ground. It does not have to be Army boots, but it takes people invested on the ground to go and bring to finality all the other things that we can do.

If you want to look at the issue of precision and that gets a lot of attention because---

Mr. Frelinghuysen. Precision, fire power, we have got it.

General Shinseki. It is sometimes described as a counterpoint to ground capability, and I don't think it is ever intended to be that way, nor do I think it is a very accurate way of describing what our capabilities are or our professions are. Precision has a value to the way we prosecute this business of combat.

But there is precision with fires and there is also precision with maneuver, and in the business of precision with fires, you have two components of that. You have the accurate location of a target and then you have the accurate delivery of fires. Accurate delivery of fires, I think we have demonstrated that we have the technology to be able to do that. We are always challenged with that first piece, and that is the accurate location of a target. Unless you can bring target location error and circular error probability of a location of a target and a strike of a weapon, precision is sort of less than we would like it to be.

Where ground forces provide contributions is resolving the front end of that, and that is locating, fixing, isolating that target so that you can bring to bear precision fires, and so there is a complement here. And certainly in the ground warfighting doctrine, fires and maneuver are always talked about as complementary capabilities.

In the joint arena, maneuver and fire still have that relationship, and a final resolution of most of the scenarios that we look at and prepare for ultimately end up on the ground. You have those situations in which a target not only cannot be identified or located, but even if identified and located are conflicted because you have innocents around them, and so your fires are not able to be necessarily employed to the extent you would like, and it takes, then, ground capability to go in there, get the separation you want or to take targets down.

I think we have seen all of our services mobilized for this potential operation, and I think all of us have demonstrated. As General Jim Jones and I used to say, we were never on an overly crowded battlefield. There is enough work for everybody.

Mr. Frelinghuysen. Great. Thank you.

Mr. Lewis. Thank you, Mr. Frelinghuysen.

Mr. Visclosky.

ABRAMS AND BRADLEY MODERNIZATION PROGRAMS

Mr. Visclosky. Thank you, Mr. Chairman.

Gentlemen, thank you for your service. Mr. Secretary, as I understand it, the Abrams and Bradley Fighting Vehicles were modernized, were two divisions, but that the proposal now is to terminate the modernization program, despite the fact that it has not occurred, for the Third Armored Cavalry Regiment. What is the rationale for the termination of that?

Secretary White. Up until this year, our plan had been to fully modernize three and a third divisions. The three divisions of III Corps: 1st Cavalry, 4th Infantry Division, 3rd ID and its cavalry regiment, 3rd ACR. This year we had to make some tough choices about how much we could modernize, and the core of the modernization is the M1A2, most advanced variant of the Abrams, and the Bradley A3 variant.

This year in making trades that I referred to in my opening remarks and needing the money to support Transformation, we had to reduce the modernization to six brigades, two divisions, the 1st Cav and 4th ID, and forego the modernization of the other division and the ACR. And it was a choice that we had to make in order to fully fund Transformation, and we had to limit the degree that we would otherwise

would have liked to have done in modernization of the existing force, and that is the call that we made.

Mr. Visclosky. How much money would be involved, Mr. Secretary, approximately? What was the trade-off moneywise then?

Secretary White. I will have to get the details as to how much four brigades' worth would have been to modernize Bradley and Abrams, but I will get you those numbers.

[The information follows:]

To provide both the 3rd Armored Cavalry Regiment and the 3rd Infantry Division with the same vehicle mix that the rest of the Counterattack Corps has, consisting of the Abrams M1A2-SEP tank and the Bradley M2/3A3 Infantry Fighting Vehicle, the cost would be \$1.936 billion for Abrams tanks and \$1.589 billion for Bradley Fighting Vehicles. If the Army were to use M1A1 AIM-D with second-generation forward-looking infrared radar, the cost would be \$165.4 million plus \$1.589 billion for the Bradley Fighting Vehicles. Other variations of the Bradley Fighting Vehicle could also be assessed for such an upgrade.

Mr. Visclosky. I have one or two questions for the record on the Abrams Tank and the Bradley Fighting Vehicle.

[Clerk's note.--Questions submitted by Mr. Visclosky and the answers thereto follow:]

Question. In order to pay for the Army of the future (the Objective Force), this Committee has supported the Army's termination and reduction of dozens of current programs over the past two years. In fiscal year 2004, the Army again asks us to support program terminations and reductions--this time a total of 48 programs impacted.

Two of these programs are the Abrams Tank and Bradley Fighting Vehicle. These are the current force's most potent weapons to ensure both enemy defeat and soldier survivability. The Army now proposed to terminate Abrams and Bradley modernization after fielding of modern versions of each vehicle to only two divisions. This leaves the 3rd Armored Cavalry Regiment--the other unit in what the Army calls the Counterattack Corps--with Abrams and Bradley vehicles that are more than 10 years old.

Please explain your rationale for terminating the M1A2 SEP tank and Bradley A3 Fighting Vehicle before fielding to the 3rd Armored Cavalry Regiment.

Answer. The Army favors a pure Abrams tank fleet for III Corps; however, as with many other major weapons systems, it is cost prohibitive to procure a M1A2 SEP tank for every armored crew. This is especially true when considering the significant bills we are faced with in order to transform the Army. As a result, the Army has made some difficult decisions on equipping the armor corps. The end state for the tank fleet based on these decisions will be M1A2SEP tanks in the 4th Infantry Division and 1st Cavalry, and M1A1HA, M1A1AIM or M1A2 tanks in the rest of the active force. We are currently working options to buy back M1A2SEP's and M3A3's or M1A1AIM-D+ tanks and M3A2ODS++ for 3rd Armored Cavalry Regiment giving them the digital architecture to communicate with the rest of the digitized III Corps.

Question. Please provide your analysis of this decision that shows how the need to terminate these programs for affordability reasons outweighs the operational combat risk.

Answer. The Army has made some difficult decisions on equipping the current force with the most modern and capable equipment. Although we have assumed some risk by not producing enough M1A2SEP tanks to equip the 3rd Armored Cavalry Regiment and 3rd Infantry Division, we still maintain both survivability and lethality overmatch with the current tank force. The delicate balance required to transition from the current force to the Objective Force will require some acceptable risk, but never to the extent of putting our troops at an unacceptable risk.

Although every armor unit will not be equipped with the M1A2SEP tank, all Active Component units, less 3rd Infantry Division, will receive a new AIM tank providing even greater survivability, mobility, and increased operational readiness rates. The 3rd Infantry Division is scheduled to keep their newer M1A1 heavy armor tanks providing them with a similar level of armor protection.

The Army is preparing a response to a Congressional report requirement requesting a study on the compatibility of a mixed tank fleet and the adequacy of such a mixed fleet to meet the heavy corps mission. We expect this study to be finished in July 2003.

Question. Can this Committee be assured that if it provides the Army additional resources to procure the required M1A2 SEP tanks and Bradley A3 vehicles that the Army will spend the funds for that purpose and that the Army will provide the balance of funding required to complete that procurement?

Answer. Yes, to the extent that the Army is continually reviewing the delicate balance of the Army's contributions to the Joint war fight. Modernizing the 3rd Armored Cavalry Regiment is one of the Army's top priorities and every effort will be made to use all available assets to accomplish that goal.

Question. Would the Army be willing to work with the contractors for each of these combat vehicles to find an innovative solution to resourcing the needed M1A2 SEP tank and Bradley A3s to include zero sum movements of funding within each program?

Answer. The Army shares your concerns about the long-term viability of United Defense LP and General Dynamics Land Systems. We have initiated a series of discussions with corporate representatives in an effort to ensure these facilities can successfully bridge the gap between the end of the production of legacy systems and the initial production of the Future Combat Systems. We will continue to support the Abrams fleet as the Army transitions to the Objective Force, maintaining minimal risk on all fronts.

[Clerk's note.--End of questions submitted by Mr. Visclosky.]

COUNTERATTACK CORPS ARMOR REQUIREMENTS

General Shinseki. May I add to this discussion, Congressman? Three years ago when we began this review of the state of the Army, in fact we had a focus on this counterattack corps, three and a third divisions. And as we projected forward the investments at the end of 10 years, at that would accomplish for us if we were to do everything we had described, we would have three and a third divisions that were quite capable, quite modernized, essentially a heavy force that we have today, and the ability to transport it rapidly would still be challenging.

It is on that basis that we went back and took a look at

whether the Army would be best served with one piece of it, this one corps that was wholly modernized, whether it was strategically more important for us to go back and look at the entire Army and put in place a modern transformation program that would give us all of our divisions that would be in the same condition as that one corps, all of them capable of being moved quickly, being lethal, and having the descriptors that I used earlier. A strategic change for us. And we decided to refocus our dollars and our energy and to make some tough decisions that would give the Army, the entire Army, the capabilities that we had been sort of husbanding for a single piece of it.

We think in the long run that will bear out as having been the right decision. We understand that whenever you go through this transformation, there are pressures on existing members in the industrial base. We understand that. And 3 1/2 years ago we made very clear in our early presentations that we could not do this, this major change in transformation, without the support of industry, and we invited industry to join us. We told everyone this would be a bold step, but we needed their help to step off, and we would do the best we can to resolve risks and work through this.

There are a number of early beneficiaries of this. The NLOS cannon, common chassis FCS business, has already identified some members of industry who have already begun to make that return on early investments because they are part of this effort to make the change. Others took risk on their own and stepped off smartly with us and are yet to have the benefit of those decisions. Others were a little slower to step off for reasons of their own. There may be even some who chose not to step off. But there are a variety of categories of situations for industry. For the most part, industry has stepped up with us. We would not be where we are today--even if we had the funding available, we would not be where we are today if industry as a whole hadn't supported us in this effort.

We will continue to look at those concerns that are expressed by Members that say they have got periods here that have to be bridged, but it is not too late to step off with us, and I think it is---

FISCAL YEAR 2003 FUNDS FOR ABRAMS AND BRADLEY

Mr. Dicks. Would the gentleman yield just briefly?

Mr. Visclosky. Sure.

Mr. Dicks. What are you going to do with the 2003 money for these upgrades and the tanks?

Secretary White. Spend it.

Mr. Dicks. On something else or on---

Secretary White. No. In other words, to get the fully modernized capability---

Mr. Dicks. At the Corps you have got to spend the money on the 2003---

Secretary White. Right. We are talking about 2004 money, not 2003.

Mr. Dicks. Right.

General Shinseki. The 2003 dollars were assigned against risks that we did not want to take, and so those dollars are

being focused on that. It is the 2004 monies that we begin to-- Congressman, it is really beyond the 2004 and it is really 2005 and 2006, that some of these trend lines begin to drop more significantly.

LIFE CYCLE COSTS

Mr. Visclosky. I have a lot of reasons to be proud to serve with the members on this Committee. Besides their focus on the quality of life of those individual troops, it is also the issue of operation and maintenance and spare parts and all those things that don't capture headlines. And I share their concern particularly as far as the rising cost of readiness and the issue of paying attention to life cycle costs during system development. And my sense is that that life cycle cost of a system generically on average is about 72 percent of the overall cost.

What programs or proposals do either of you gentlemen have in place to try to better address that issue? And I understand there is always that impulse, and I think it is a natural impulse, to get right to that cutting edge of that technology or new system but not look at the overall cycle costs in maintenance problems that may impose?

Secretary White. That thrust line is a central part, a critical part, of the Future Combat System development. We absolutely must reduce the logistic burden associated with the Future Combat System over the current heavy force that drives the life cycle cost.

Another part of it is robotic technology. If you look at Crusader, and now the FCS Non-Line of Sight Cannon, the biggest classed element in the life cycle is the cost of the crew. And so if you go to unmanned systems and robotics and become more efficient with people going forward, it will also have an enormous impact on the O&M cost. So the automatic loader that we are transferring over to the cannon in the Future Combat System, which allows us to put a significantly smaller crew on the cannon, will also have a significant impact on the life cycle question.

So I absolutely agree with you and that is a central thrust on the Objective Force. The same with Comanche.

Mr. Visclosky. Thank you. Thank you, Mr. Chairman.

Mr. Lewis. Mr. Tiahrt.

BUSINESS INITIATIVE COUNCIL

Mr. Tiahrt. Thank you, Mr. Chairman. I would also like to add my voice in thanking you for your service to the country. You could have done a lot of other things with your life. You chose to serve our country, and so thank you very much.

I want to make a comment to start with. You have started an Army Business Initiative Council. I think it is very innovative. The Federal Acquisition Regulations are lethargic, cumbersome, and they block getting new technologies into our soldiers' hands. And I would like to extend an offer to work with you to change the process if we can, so we can shorten the time it takes to get a good idea in the hands of the people who defend this great Nation.

Secretary White. I look forward to that.

TRANSFORMATION

Mr. Tiahrt. Second, we used to call it modernization, it is now transformation. We have an aging Legacy Force and in our efforts to upgrade them sometimes we have come up with multiple systems out there. We have about four different models of an M-1 tank, I am told three models of the M-2Bradleys, a couple models of the helicopters, Apache helicopters. The Black Hawks have more versions than that out there.

So we have these upgrades that cost a lot with O&M, and I think it consumes our resources. How do you balance between maintaining some of these items in our Legacy Force with new procurement, new ideas? What is the criteria that we are going to use in the future to decide whether we maintain an existing system or discard it for a new technology?

Secretary White. Well, let me start, and the Chief can--let us take aviation, for example. We have invested over the years to put together an aviation fleet with Apache, Black Hawk, and currently Kiowa Warrior and, in the future, Comanche, that we are paying to upgrade to digital capability and to have a common set of helicopters and retire the AH-1s and the Hueys that were in our fleet in previous years. So the overall fleet is going to be smaller by about 1,000 helicopters. But it will be more modern and it will all be digital cockpits, and that is the decision we made on how to modernize aviation and bring Comanche on as a part of it.

We will make decisions on block improvements and infusion of technology into existing systems as a trade against bringing in new systems in the Objective Force. And as you have heard in the previous discussion, we have found it necessary to limit the modernization of the Legacy Force in order to support Transformation because we think there are enormous advantages to doing that. But it is a tough call and in this particular budget, the call is made in favor of the Transformation side as a way to get to the O&S costs and a lot of other things and strategic deployability of the force.

General Shinseki. I would only add, Congressman, that this is a challenge that all the services had, and the Army has had to walk this line between taking care of today's Legacy Force, that force that you go to the unanticipated crises, that go to fight wars on short notice, understanding that if you don't husband resources and take care of the future, that future force is the same one you have today, just older.

So all of the challenges that you have today about where you can deploy, how fast you can deploy, and what it takes to sustain it, is just more significant 10 years from now. And so what the Army has done over the last three years and where it stands today is to have balance, exactly what you asked us to do; and that is to ensure that today's force can go and handle today's crises, but to put as much energy as we can towards the Future Combat System.

Much of that momentum that we have today came right out of this Committee. I mean there was \$3.2 billion added a few years ago to give us that kind of momentum. It is a challenge. We have taken risk in the Legacy Force, but I can tell you that

the answer I provided to the Chairman in the opening here as he asked is this force ready, and I unequivocally said, yes, it is, and it can go and do what it is that the President might order--I will tell you that that risk has been acceptable in our estimation, and we are as confident in this force today as we thought we would be here in the year 2003. But at the same time, we have put the energy for capability in 2008, 2010, that will allow a future Chief, yet again once removed, to be able to say that right decisions were made in 2003 to give him the best Army in the world in 2008-2009.

Mr. Tiahrt. I realize this is an open hearing, Mr. Chairman, and I would have other questions if it were closed, but I think I will just yield back the rest of my time.

STRYKER BRIGADES

Mr. Lewis. We will have many occasions to ask those closed-door questions. Thank you very much. For the members of the Committee but also those who are participating with us, we have this room for about another half hour and I know members have additional questions. So while we have the opportunity, Chief, earlier we talked about Stryker, and I remember your talking about the fifth and sixth brigades. I was frankly--while I had known, I was nonetheless reminded of the value of that sixth brigade being with the Guard and Reserve people, that if they are not connected to the future that it has implications that are long term. So I was hesitant to even mention the fact that Fort Irwin used to be in my district. It is not any longer, but I have always wondered why we didn't have a Stryker Brigade out there. In the meantime I----

General Shinseki. There will be a Stryker unit training there shortly, Mr. Chairman.

STRYKER ACQUISITION

Mr. Lewis. I specifically wanted to ask you if you would elaborate for us with those brigades anticipated, the mission requirements that are a part of that asset and what you anticipate.

General Shinseki. May I give a broader answer and then get to some specifics?

Mr. Lewis. Sure.

General Shinseki. Mr. Chairman, three years ago, if we were to go back and visit the discussions we had, I think the observation of the Army was it was an Army still Eurocentric, very much heavy, and focused on Europe. And the question to the Army was how are you looking at your responsibilities more broadly and what do you think, what capabilities you need to be able to deal in a larger strategic context?

As a result of some of those discussions, we did take a look and I think found ourselves fairly heavy-forced and focused in Europe. We were asked to think about the Asia-Pacific theater, a maritime theater to be sure. The tyranny of distance is clear, but ultimately as I indicated, when you get to where the problem areas are, they reside on land, and you have to have some capability to deal with it. A heavy army with 70-ton tanks didn't see itself quite capable of providing

options to the combatant commander of the Pacific.

We were asked to think about it and we tried to resolve our concerns in developing an interim capability that served really several needs. One was to solve this gap between early-arriving light and later-arriving heavy forces, and we did need something that gave us a capability we didn't have, an interim force.

We also understood that if we are going to talk about the future force, that initially when we asked about these breakthrough technologies that would be available to be used in the Army, the early answers were 2018. That is what we were asked to think about.

Well, 2018 was so far in the future we needed a way to pull that focal point closer in, and we have asked for a 2008 capability. But to do that we had to restructure our acquisition process. And Stryker then served the second need, and that was to run at our acquisition processes, sort of bang into things and reorganize the deck chairs into a faster, more capable acquisition process. Stryker was described as a 7-to-9-year effort initially. We have fieldedit in 2\1/2\ years. I think we have demonstrated that both the acquisition process and industry can respond more quickly, giving us some confidence in the 2008 date.

And, equally importantly, the third reason we needed the Stryker Brigades was you need a laboratory to grow new leadership that is going to think about new organizations, new ways of putting together capabilities, new ways of fighting, so that when 2008 arrives and the technology is here, you have got a leadership that is ready to leverage that.

For all those reasons, we felt that the interim effort was important. How many of these Stryker Brigade Combat Teams--and as you know, there were Interim Brigade Combat Teams initially. They didn't even have a name because there was no vehicle associated with it. There was a range of numbers. We settled on six, and the six were located at Fort Lewis, Washington, for reasons that were important to us because Fort Lewis has a history of mounted operations and we didn't have to put a lot of investments in infrastructure. It already exists: ranges, motor pools, roads.

If we were going to address the requirements of the Pacific combatant commander, we had to give him more than just a one location option and we looked at placing Stryker Brigade No. 3 in Alaska. We had a requirement to meet the needs of the 18th Airborne Corps, our contingency corps, and that required us to provide the fourth piece to the 2nd Armored Cavalry Regiment at Fort Polk. The fifth was to round out the Asia-Pacific focus, and that was decided that to get to Southeast Asia most rapidly, a location of a brigade in Hawaii would fit. And then the sixth was a more strategic investment and that was for the reasons cited by the Secretary, an investment of a sixth brigade in a National Guard unit. And the National Guard participated in that decision, came back to us and said that the best unit should be the one in Pennsylvania.

We have been asked to relook at the fit, the organization, the capabilities, and the locations. We are doing that study now, and for all of what has been provided, the early studies seem to have been about right; that the capabilities to get to

the problem areas in the Pacific that the combatant commander asked us to look at, put those four brigades on the Pacific Rim about in the right locations. But we will review that and provide our final studies, as the Secretary said, we are in the process of doing. Six is about the right number. It is an affordable one.

REDEPLOYMENT OF ARMY FORCES IN EUROPE

Mr. Lewis. Mr. Secretary and Chief, you heard me earlier express no small amount of frustration relative to the peace option and I kind of pointed a finger at our friends in Europe; namely, the French and Germans. I wanted a linkage to scratch my head. There is a question I wanted to ask about how you view the recent discussions concerning redeployment of U.S. Forces from bases in Germany to locations in Eastern Europe.

Secretary White. Well, Mr. Chairman, the Combatant Commander, General Jones, is in the process, as he has talked about, of conducting a strategic review to see what our positioning should be and our posture should be in Europe, looking towards our long-term security interest in not only that area of the world but in other parts of the world where you could possibly deploy from that portion of the world.

Our business will be, when he brings that in and the Secretary looks at it and decisions are made about that posture to line up the Department behind whatever plan is decided, to support him and to support the Secretary of Defense. And consequently we are active participants in that review, and we will just have to wait and see how it comes out, but we are deeply involved in that.

Mr. Dicks. Just on that point, is that why you didn't require any military construction in Europe this year?

Secretary White. We did. We have Military Construction projects in Europe in 2004.

Mr. Dicks. You do.

Secretary White. And in 2003 as well, yes.

Mr. Dicks. The Chairman has yielded to me. Thank you very much. On the Stryker----

Mr. Lewis. How much time do you think I am yielding to you?

Mr. Dicks. Whatever I can get.

Mr. Lewis. I am going to get to you in a second. Chief, do you want to respond to that at all?

General Shinseki. I would just add, just to reinforce the Secretary's comments----

Mr. Lewis. By the way, I think I may yield over here next time. Excuse me.

General Shinseki. I think in the long term what serves us best and how we make our decisions in the near term is to look for strategy that has a good description of where we want to be in the future. The question may start with do we think there will be a NATO in 10 to 15 years. I personally think so and I would hope so. Do we see our membership in it as important, our leadership in it as important? I think so. And if that is the case, what is NATO going to look like in the years ahead and how do we see ourselves being contributing members and where does that footprint look?

I think that strategy is being looked at by the Combatant

Commander and I think we ought to give him time to get to the best description that he can provide. And we certainly help him with that. But once he has made that plan, that description, then we will do everything we can to swing our priorities to be able to help him accomplish that, but I do think the long-term view is certainly helpful.

Mr. Lewis. Gentlemen, from time to time, we do have questions about the size of our total budget that goes towards the military. We have fewer of those questions today than we have in the past, but to have you talking about the long range is very important to this member, for indeed we spend money every year not because we are interested in pursuing war but, rather, America is going to lead the world over the decades ahead.

Go out to 2020, our objective is to have peace with the world, the Indias, the Chinas, the future leadership forces in the world. So that long-range thinking is very important to me.

Mr. Dicks.

HIGH-SPEED SEALIFT SUPPORT FOR STRYKER

Mr. Dicks. Thank you, Mr. Chairman. The Army has recently decided to field a fleet of 12 high-speed vessels, catamaran-style ships to further its goal of being able to transit a Stryker Brigade in 96 hours; is that correct?

Secretary White. No sir. The program is seven vessels.

General Shinseki. That is correct. Seven vessels are in our program.

Mr. Dicks. Where are you going to locate that? Do you have any idea? I have got a good suggestion.

General Shinseki. I think in proximity to Stryker Brigade locations is probably helpful.

Secretary White. As you know, Congressman, we tested--we have a leased vessel catamaran that carries 55 Strykers. We moved the Stryker platoon from the Irwin area---

Mr. Lewis. The less you dwell on this, Mr. Secretary, the better off Mr. Dicks is going to be.

Secretary White. Okay, never mind. We are working on it.

STRYKER AND M113 COMPETITION

Mr. Dicks. And on the M113 competition, Stryker won hands down; is that right?

Secretary White. Yes, in our view. We did the side by side, as was required, and I think you would just ride the back end of either of those vehicles maybe 5 minutes and you won't require the rest of the tests.

Mr. Lewis. The gentleman has 30 seconds remaining.

PATRIOT ADVANCED CAPABILITY-3 MISSILE (PAC-3)

Mr. Dicks. PAC-3's, why did you still put them in the Army budget when Congress has directed you to put them in the Missile Defense Agency?

Secretary White. The Missile Defense Agency is transferring control of PAC-3 and MEADS to the Army, and that should happen very shortly.

Mr. Dicks. All right. So you are staying with your position?

Secretary White. Yes, sir.

Mr. Lewis. Mr. Nethercutt.

CONSOLIDATION OF THE MILITARY PERSONNEL ACCOUNTS

Mr. Nethercutt. Thank you, Mr. Chairman. One question, gentlemen. I understand that the Office of the Secretary of Defense has directed the services to consolidate all military personnel appropriations to the Guard, Reserve and Active accounts in this year's budget. I have also heard that the next step may be toward an effort next year to similarly roll together the O&M MILCON accounts. Is that your sense of the direction from OSD? And if so, I am wondering what is broken about the current process that would necessitate such a move?

Secretary White. Congressman, I haven't heard of the second part of it. The first part of it, I think the consolidation of the manpower accounts is for flexibility, but I haven't heard anything about the second phase.

Mr. Nethercutt. Thank you, Mr. Chairman.

Mr. Lewis. Mr. Frelinghuysen.

CHEMICAL AND BIOLOGICAL WARFARE

Mr. Frelinghuysen. With all the talk of mobility and getting back to boots on the ground, the thought that the battlefield could be littered with biological and chemical agents is a most frightening prospect. I am not sure what you could say here in this setting, but obviously news reports point to alleged inadequacies in terms of training and thinks of this nature. I have no doubt that you have given your full concentration to all the possibilities and to all what I think you classified as unpredictables.

Can you give us some higher level of reassurance that those many troops on the ground are prepared for every eventuality?

General Shinseki. Congressman, as I have indicated earlier, this is the toughest part of our mission preparation. First of all, there are lots of unknowns, but what we do know about it we have taken steps to safeguard and protect and prepare our soldiers. As I indicated, over the past 6 years, 19 new chemical and biological defense systems, detectors; first of all, five detectors for chemical and biological agents that we didn't have in Desert Storm. Part of this has been a new protective overgarment and a new mask that replaces the one that we had and that every service member who deploys has four sets. That is a capability.

Now, we have taken our soldiers and put them in the most trying training conditions, and you operate fully protected with your mask on for a period of time to get you used to the discipline and stamina that goes with operating in this environment. And whether it is February at Fort Stewart, Georgia, or August in the National Training Center on a training exercise, you can expect that you will be fully protected and you will have to operate in that condition and complete your battle tasks as a part of that training scenario.

So I will tell you that we have made major efforts at

preparation for the last year now. If you see the film footages of our formations that are forward in the area of responsibility today, a good portion of what you see are people operating that equipment. There are still unknowns, but our confidence level at being able to operate in this kind of an environment is significant.

Mr. Frelinghuysen. Thank you. Thank you, Mr. Chairman.

Mr. Lewis. Thank you, Mr. Frelinghuysen.

Mr. Visclosky.

FORCE STRUCTURE

Mr. Visclosky. Mr. Chairman, thank you very much. I do appreciate the work you do in transformation in trying to gain control over obviously a very large organization and ingrained cultures and habits and interests in trying to make a fundamental change. I would associate myself with the point Mr. Obey had made earlier, though, as far as the absolute size, given the TEMPO of operation, the commitments that have been made, the increased mobilization of Guard units and Reserve units, the changed demographics of enlisted personnel as far as their marital status and family-in-distress deployments cause in that situation, that we are not going to have the determination of that today or in the immediate future.

But at some point I do think we are going to have to examine whether we have enough people. Because in the end, as you both state in your testimony, each one of those individual Americans who have put that uniform on and decided to risk their lives for our interest are the most important components; and the question, ultimately, is you don't want to wear them out and their families out, too.

I am not really asking a question, but I do think you raised a very fundamental and important point.

General Shinseki. There is no disagreement here, Congressman. We are, you know, in agreement with you--violent agreement, in fact.

Mr. Visclosky. Thank you, Mr. Chairman.

Mr. Lewis. Thank you very much, Mr. Visclosky.

We are coming close to the end of this hearing, but I wanted to make a few comments in connection with all of this.

I mentioned earlier that oft times we are criticized for the portion of the national budget that goes to the national defense. It gets close to, among discretionary dollars, to half of our total national budget. Those of us who have been on this Committee for years have constantly tried to remind people that one of the very few really, really important reasons for national government in the first place is to secure our democracy and our freedom. Indeed, today, people understand just how important our being ready and prepared and doing the R&D, et cetera is. We don't hear very many calls about reducing numbers of troops at this moment, while not so long ago that was almost the byline around here.

We don't hear very many expressions of concern about recruitment, for example. We are breaking records regarding recruitment in the Army presently, and not so long ago our frustration was where do you find those volunteers and how do we pay them enough to keep them.

It is an evidence that when America is challenged our people respond, and it is reflected in the services across, but especially in the Army.

Mr. Secretary, I want you to know how much I appreciate your personal service here. You have made a very extended commitment beyond what most could ever ask, and you have carried forth this job extremely well, and I appreciate that.

Secretary White. Thank you, sir.

Mr. Lewis. Speaking to my friend the Chief, Eric Shinseki, I will never forget--just very shortly after I was first given the privilege of having this job 4 years ago, I went to the swearing in of the new Chief of the Army; and I learned in that process that this fellow, when he was born in Hawaii, was a foreign alien, World War II time. Think of what it says about America to have a foreign-born alien now the Chief of the U.S. Army.

Think of what it means further to have that leader, after 37 years, not just lead the Army but do it so well. Indeed, it is a very, very impressive reflection of our process; and we ought to all be grateful for the fact that our system works as well as it does. America leads the world because they have got people who can help us lead.

So, with that, if there are no further questions, the Committee is adjourned. Thank you, gentlemen, very much.

[Clerk's note.--Questions submitted by Mr. Hobson and the answers thereto follow:]

Family of Medium Tactical Vehicles

Question. The biggest Army procurement is the acquisition of 83,170 trucks and 10,000 trailers for a total of approximately \$18 billion through the year 2024. Later this month--on March 26, 2003--the Army is to choose between two vendors who have been in a ``bake off'' to sell the next version of the FMTV.

Is this competition moving on schedule?

Answer. The Army is nearing contract award. The FMTV A1 competitive rebuy contract award has been delayed until April 2003 while two remaining certifications/notifications are provided to Congress.

Question. Will there be a gap between the end of the current contract and deliveries under the new contract?

Answer. There will be no gap between the end of the current contract's deliveries and deliveries under the new contract.

Army Corps of Engineers

Question. It is being suggested that the Army Corps of Engineers--particularly the civil side--does not belong in the Army.

What was behind this proposal, and has the idea now been discredited?

Answer. One of the high priorities of the Secretary of Defense has been to reduce or eliminate activities within the Department of Defense that divert resources away from the primary defense mission. As part of this review, options were considered that could have led to the transfer of the Army Corps of Engineers Civil Works program to other agencies. The Army has no such initiative underway, nor has the Army been asked to undertake such an initiative. We understand that this matter is no longer being considered.

Section 109, Division D, of the fiscal year 2003 Omnibus Appropriations Act expressly prohibits use of any funding for this purpose in fiscal year 2003. The Civil Works program is resourced separately from other Army and Defense Department activities, so there is no question of diversion of military resources. Moreover, the Civil Works program provides a trained and ready engineering and scientific workforce within the Army, available to be reassigned as needed to defense missions such as environmental restoration of oil fields or rebuilding infrastructure in Kuwait, Bosnia, and Kosovo.

hemacoolers

Question. For the third year in a row, fiscal year 2003 contained a plus-up from me for Portable Low-Power Blood Cooling and Storage Devices ('`Hemacoolers''). You need this system now for portable, low-energy use, blood storage in forward deployed units.

How can I encourage the Combat Support Medical Procurement staff at Fort Detrick to move ahead on this?

Answer. The U.S. Army Medical Research and Materiel Command at Fort Detrick is actively moving ahead with this important technology. The Command received \$250,000 in research and development money in April 2001 for development of a low-power blood cooling and storage device. That money was provided to Energy Storage Technologies, Inc., of Dayton, Ohio, in the form of a cooperative research and development agreement. Energy Storage Technologies completed development of the device and provided a briefing to the Army on a prototype device on March 4, 2003. Testing is required on the device before a full production contract can be awarded.

Rotational Force in Europe

Question. General James Jones, Commander of United States Forces in Europe, has discussed the possibility of moving to a United States presence in Europe made up of (1) troops on short term rotation, (2) families left at home in the U.S., and (3) ``lily pad'' compact bases scattered in the New (Eastern) Europe and Africa. Camp Bondsteel would be a model. Such an approach would fall heavily on Heidelberg and the heavier United States Army. What is the Army opinion of this vision?

Answer. The Army Staff has been directed to conduct an extensive review of Army strategic posture looking out over the next ten years to ensure that the Army is able to meet all the requirements of the combatant commanders and is well positioned to seamlessly transform to the Objective Force. Concurrently, the Secretary of Defense has directed that his staff, the Joint Staff, and the combatant commanders review future posture, overseas basing, and rotation policies. The Army is working in close coordination with these efforts to ensure the synchronization necessary to meet the Army's responsibilities for flexible power projection and sustained land dominance as part of the Joint Force. We will continue to work closely with the combatant commanders, the Joint Staff, and Office of the Secretary of Defense to develop and ensure the appropriate posture to meet both the current strategic requirements and the future challenges to our national security.

Question. Are all military construction projects in Europe on hold and is it because of this? Or something else?

Answer. The Office of the Secretary of Defense is withholding fiscal year 2003 military construction funding for Germany while General Jones conducts a review of force structure, stationing, and related infrastructure requirements in Europe. The Secretary of Defense

has asked him to revalidate projects for the fiscal year 2003 and fiscal year 2004 military construction program within 30 to 60 days. This allows the Army to perform a more detailed assessment of facility requirements. Upon receipt of this assessment, project level execution plans will be developed to accommodate required changes to the current program.

Question. Is there the same situation for military construction projects in Korea?

Answer. Yes, the Korea combatant commander is also conducting a review of force structure, stationing, and related infrastructure requirements. We plan a similar relook at our construction program.

National Guard and Reserve Personnel

Question. In a September 13, 2002, letter to Defense Secretary Rumsfeld, with a copy to you (Secretary White), I complained about the misuse of the Guard and Reserve. Part-time reservists are being turned into full time soldiers through extended and unpredictable active duty assignments. While reservists are more than willing to do their share, especially in a time of crisis, they signed on with the expectation that periods of active service would be relatively short.

Are we using the Guard and Reserve instead of asking for the higher level of Active Component troops actually needed?

Answer. When our endstrength was reduced to 480,000 several years ago, the Army chose to put the preponderance of some low-density specialties into the Reserve Component in order to maximize the Active Component combat power available for response to contingencies. Since that time, the level of contingency operations has risen, forcing us to draw from the Reserve Component for the soldiers with the right skill sets to support these deployments. We have had over 30,000 Reserve Component soldiers mobilized continuously since 9/11. I have testified that I believe the active Army is too small for its current mission profile. That said, there are a number of initiatives in process to address this issue. We are working to ensure that we optimize the mix of specialties in the Active and Reserve Components, as currently sized. We are also striving to use existing endstrength most efficiently through our Third Wave initiative, which aims to keep soldiers and Army civilians assigned to positions that are part of the Army's core competencies. Finally, we are using the flexibility Congress has provided us to mitigate the stress on our Reserve Components.

Question. What is your active strength and what should it be?

Answer. The Congressionally mandated fiscal year 2002 Active Army end strength was 480,000. However, nothing has changed since my last testimony--the Army is too small for its mission profile. The reality is that our operations tempo, already challenging before 9/11, has increased dramatically in the post 9/11 environment. Over the past 18 months, mobilizations have maintained a steady state of approximately 30,000 Reserve Component soldiers, effectively increasing our active duty strength to approximately 510,000. We recognize the necessity to ensure we look internally to obtain all possible efficiencies prior to making any determinations on potential end strength increases.

A study is currently underway to review Army non-core competencies--the Third Wave--with the expectation that some personnel savings will be generated for use in mitigating ``force stress.'' Additionally, we are fully cognizant of the stress that this steady state mobilization is placing on our Reserve Components. Studies are

underway to determine the correct balance of Active and Reserve forces, including an analysis exploring options for mitigating the current stress to the Reserve Component by ensuring that the correct type units are resourced within the Active Component.

Question. What percent of the mission is done by the Active Component, the Guard, and the Reserve?

Answer. First of all, the Guard and Reserve personnel we have mobilized have done an outstanding job and have been a valuable asset in the fight against terrorism. As for the percentage, the Active Component does roughly 60 percent of the mission and the Reserve Component does about 40 percent of the mission. As the war on terrorism continues, we will continue to rely heavily on the Reserve Component for critical specialties such as civil affairs, Special Forces, military police, and military intelligence.

Question. Do the Guard and Reserve requests for equipment and military construction projects reflect their share of the mission?

Answer. The Guard and Reserve continue to play an important role in the Army's missions and are being modernized and transformed along with the active forces. Equipment and military construction projects for all components are based on the requirements generated from The Army Plan and the Defense Strategy. This equipping is taking place across mission sets.

In recognition of the vital role played by the Reserve Components, the Army plans to convert a Reserve Component brigade in Pennsylvania to a Stryker Brigade. This conversion will enhance our strategic reserve and support the war on terrorism, small-scale contingencies, and homeland defense missions. All associated critical equipment and military construction projects are funded for this conversion. Similarly, for the Army's Aviation Transformation Plan, the Reserve Components have been funded alongside their Active Component counterparts.

Additionally, the Army continues to implement the Army National Guard Division Redesign Study (ADRS Phase I & II), a process that will convert six Army National Guard combat brigades to combat support and combat service support structure. In addition to ADRS, the Army has begun planning for the implementation of the Army's National Guard Restructure Initiative, an initiative that will convert additional heavy combat brigades to mobile light infantry brigades in order to take into account the new strategic roles and missions of our Reserve Components.

Finally, there are many other force structure changes that will require new equipment and construction for the Reserve Components, and these are based upon the requirements of the Defense Strategy. These changes include additional biological detection companies, civil support teams, military police, military intelligence, engineers, and other similar units. Guard and Reserve forces are being equipped for these critical missions.

Abrams and Bradley Modernization Programs

Question. In order to pay for the Army of the future (the Objective Force), this Committee has supported the Army's termination and reduction of dozens of current programs over the past two years. In fiscal year 2004, the Army again asks us to support program terminations and reductions--this time a total of 48 programs impacted.

Two of these programs are the Abrams Tank and Bradley Fighting Vehicle. These are the current force's most potent weapons to ensure

both enemy defeat and soldier survivability. The Army now proposed to terminate Abrams and Bradley modernization after fielding of modern versions of each vehicle to only two divisions. This leaves the 3rd Armored Cavalry Regiment--the other unit in what the Army calls the Counterattack Corps--with Abrams and Bradley vehicles that are more than 10 years old.

Please explain your rationale for terminating the M1A2SEP tank and Bradley A3 Fighting vehicle before fielding to the 3rd Armored Cavalry Regiment.

Answer. The Army favors a pure Abrams tank fleet for III Corps; however, as with many other major weapons systems, it is cost prohibitive to procure a M1A2 SEP tank for every armored crew. This is especially true when considering the significant bills we are faced with in order to transform the Army. As a result, the Army has made some difficult decisions on equipping the armor corps. The end state for the tank fleet based on these decisions will be M1A2SEP tanks in the 4th Infantry Division and 1st Cavalry, and M1A1HA, M1A1AIM or M1A2 tanks in the rest of the active force. We are currently working options to buy back M1A2SEP's and M3A3's or M1A1AIM-D+ tanks and M3A2ODS++ for 3rd Armored Cavalry Regiment giving them the digital architecture to communicate with the rest of the digitized III Corps.

Question. Please provide your analysis of this decision that shows how the need to terminate these programs for affordability reasons outweighs the operational combat risk.

Answer. The Army has made some difficult decisions on equipping the current force with the most modern and capable equipment. Although we have assumed some risk by not producing enough M1A2SEP tanks to equip the 3rd Armored Cavalry Regiment and 3rd Infantry Division, we still maintain both survivability and lethality overmatch with the current tank force. The delicate balance required to transition from the current force to the Objective Force will require some acceptable risk, but never be to the extent of putting our troops at an unacceptable risk.

Although every armor unit will not be equipped with the M1A2SEP tank, all Active Component units, less 3rd Infantry Division, will receive a new AIM tank providing even greater survivability, mobility, and increased operational readiness rates. The 3rd Infantry Division is scheduled to keep their newer M1A1 heavy armor tanks providing them with a similar level of armor protection.

The Army is preparing a response to a Congressional report requirement requesting a study on the compatibility of a mixed tank fleet and the adequacy of such a mixed fleet to meet the heavy corps mission. We expect this study to be finished in July 2003.

Question. Can this Committee be assured that if it provides the Army additional resources to procure the required M1A2SEP tanks and Bradley A3 vehicles that the Army will spend the funds for that purpose and that the Army will provide the balance of funding required to complete that procurement?

Answer. Yes, to the extent that the Army is continually reviewing the delicate balance of the Army's contributions to the Joint war fight. Modernizing the 3rd Armored Cavalry Regiment is one of the Army's top priorities and every effort will be made to use all available assets to accomplish that goal.

Question. Would the Army be willing to work with the contractors for each of these combat vehicles to find an innovative solution to resourcing the needed M1A2SEP tank and Bradley A3s to include zero sum movements of funding within each program?

Answer. The Army shares your concerns about the long-term viability

of United Defense LP and General Dynamics Land Systems. We have initiated a series of discussions with corporate representatives in an effort to ensure these facilities can successfully bridge the gap between the end of the production of legacy systems and the initial production of the Future Combat Systems. We will continue to support the Abrams fleet as the Army transitions to the Objective Force, maintaining minimal risk on all fronts.

Stryker/Mobile Gun System

Question. Modernization of the Stryker family of vehicles is generally considered a success story. Stryker is going from ``factory to foxhole'' faster, perhaps, than any other major system.

The Mobile Gun System (MGS) represents the vehicle in the Stryker family that will bring the most combat power. The fiscal year 2004 request funds procurement of Strykers for the 2nd Armored Cavalry Regiment, a unit that will have more MGS vehicles than any other Stryker unit. Is this procurement rate adequate? If not, what would it take to accelerate it?

Answer. Yes, the procurement rate is adequate. The initial low-rate production decision is scheduled for December 2003 with first unit deliveries scheduled for December 2004. First unit fieldings to 3rd Brigade, 2nd Infantry Division, will occur in late 2004 to support the MGS initial operational test and evaluation. The 2nd Cavalry Regiment will begin receiving MGSs in the second quarter of fiscal year 2005.

Question. The cannons for the Motorized Gun System (MGS) are made at the Watervliet Arsenal. These cannons require 18 months of production lead-time. Does the procurement request address, adequately, this lead-time or is there the possibility of a delay.

Answer. Correct, Watervliet Arsenal is the manufacturer of the MGS cannon, and it requires 18 months lead before its production is complete and it can be installed into the platform. The additional funds provided in the FY04 congressional marks adequately address the procurement of this specific subcomponent of the MGS.

Armored Vehicle Launched Bridge

Question. One of the 24 programs proposed for termination is the Armored Vehicle Launched Bridge (AVLB) Upgrade Program, a tactical assault bridge. The AVLB was supposed to replace the recently terminated Wolverine Heavy Assault Bridge program. Is there any allegation that the AVLB cannot do the job?

Answer. The Armored Vehicle Launched Bridge (AVLB) is capable of providing the maneuver commander assault bridging capability on the battlefield within limitations. The AVLB was not designed to replace the Wolverine. The Wolverine was developed to replace the 1960s technology AVLBs; however, the program was terminated in fiscal year 2000. The AVLB continues to provide the majority of the assault bridging capability in the Army today. The AVLB comes on two separate chassis, the M48A5 and the M60A1. Both versions can carry the military load classification (MLC) 60 or MLC 70 ton bridges that can support, with restrictions, gap crossing for the M1 Abrams tank. To support the M1 tank crossing on the MLC 60 bridge, a high-risk gap crossing must be conducted and limits the maximum crossing distance to 15 meters. The MLC 70 bridge is capable of supporting the M1 tank crossing up to 18 meters.

The Army currently has 79 MLC 70 bridges in the inventory. In the

area of capability, the AVLB cannot keep pace with the newer Abrams and Bradley vehicles it supports. To mitigate the termination of the Wolverine program, and to provide a more reliable AVLB, the AVLB recapitalization program was developed. The AVLB recapitalization program was to provide both readiness and performance enhancements to a select number of the AVLB fleet. The program was designed to provide 65 AVLBs upgrades for the electronics, hydraulics, track, transmission, and final drive and provide MLC 70 bridge capability. The remaining AVLBs would have received the electrical and hydraulic upgrades and any modification work orders not applied to the vehicles. This program was terminated in December 2002 with the Army assuming risk in assault bridging capability to fund higher priority programs. The remaining fiscal year 2003 funding will continue to allow electrical and hydraulic upgrades for 54 systems. The 54 systems will support the Counterattack Corps, augmented with the 44 Wolverine Heavy Assault Bridges procured.

Question. How will the Army perform its assault bridging mission in Iraq or in any other conflict?

Answer. The Wolverine and both AVLB variants are supporting the 3rd and 4th Infantry Divisions in Iraq. Currently, the Army has 44 Wolverines programmed, with 25 fielded to the 4th Infantry Division. Ultimately, the 4th Infantry Division and the 3rd Armored Cavalry Regiment will only have the Wolverine heavy assault bridge. The remainder of the Army will continue to be supported by the AVLB (with MLC 70 or MLC 60 bridges). These are assigned to mechanized engineer units at the division and corps level and to the armored cavalry regiments.

Preparations for Military Operations in Iraq

Question. One weekend ago, I had the privilege of traveling with Congressman Jack Murtha and Congresswoman Nancy Pelosi to Qatar and Kuwait. The purpose of the trip was to review the preparations for possible military action in Iraq. Our soldiers are all ready, motivated, and a great credit to the United States.

Inevitably, the congressional delegation asked ``what do you need from us?'' The principal response was ``more bandwidth for communications.'' Despite buying commercial, there is still not enough. How can we help?

Answer. Both military and commercial satellite communications would be used extensively in any potential operations in Iraq. Units deployed to the Persian Gulf have sufficient bandwidth to accomplish their missions, although additional satellite hardware and bandwidth would provide more flexibility to execute operations.

Question. The next response was ``more SOF (Special Forces) troops and helicopters.'' How can we help there?

Answer. In response to the increasing demand for Army Special Operations (ARSOF) support to Joint force commander campaign plans, the Army has validated and resourced growth in its SOF structure. Army support to SOF aviation, combat service support, Special Forces, civil affairs, Rangers, and psychological operations has been critical to the SOF transformation strategy. The agreement between the Army and the United States Special Operations Command (USSOCOM) to transfer 1,788 manpower spaces to Major Force Program (MPF)-11 beginning in fiscal year 2003 is the first step in the U.S. Army Special Operations Command's transition toward their Objective Force. The Office of the Secretary of Defense's (OSD's) recent Program Decision Memorandum (PDM-

1) directed the Army to transfer an additional 677 manpower spaces in fiscal year 2004 to support USSOCOM and enhance ARSOF aviation and psychological operations. This represents a transfer of 2,465 spaces from the Army to USSOCOM in support of SOF transformation.

Since the commencement of ARSOF operations in support of the global war on terrorism, the Army has provided over \$1 billion in new equipment to enhance ARSOF firepower, communications, and ground and air mobility. PDM-1 also directs the Army to transfer 16 CH-47 aircraft to USSOCOM in support of SOF aviation. OSD has identified a total shortfall for USSOCOM of 24 MH-47 aircraft. Given the mission levels and existing shortfalls in the Army CH-47 fleet, the Army would request Congressional funding assistance directly to the USSOCOM MPF-11 funding line for the procurement of the eight additional MH-47G new builds to meet the USSOCOM MH-47 shortfall.

The future SOF Objective Force will meet Secretary of Defense and combatant commander requirements with enhanced lethality, precision, speed, stealth, survivability, and sustainability.

Question. Although you have done a Herculean job with this most difficult deployment, some of it was so fast that it lacked coordination. The example given is: delivery of trucks before arrival of drivers. What can be done to synchronize and sequence this?

Answer. Without a specific unit example, we cannot know whether the deployment plan intended for the trucks to show up before the drivers. In many instances, equipment is scheduled to arrive first to avoid soldiers sitting idle waiting for their equipment. As part of routine procedure, ports of debarkation have the capability to move vehicles and equipment to staging areas. In many cases, a unit advance party will arrive in conjunction with the equipment and prepare for the arrival of the unit's main body. Specific examples of drivers scheduled to arrive in advance of unit equipment, but did not arrive as scheduled would need to be reviewed on a case-by-case basis. Considering the size of the deployment, it is possible that personnel and equipment schedules were altered, thereby causing synchronization problems. The Army will gather lessons learned to identify improvements as a part of our efforts to improve the synchronization of personnel and equipment arrivals.

Question. I understand that there is a plan to arm and uniform a band of rag-tag Iraqi dissidents. Are you comfortable enough with this group to put the imprimatur of the United States of America on them? What legal implications does this have?

Answer. I believe an operational question such as this is best answered by the Combatant Commander, United States Central Command. As for the legal implications I would again defer to the Combatant Commander and his legal staff.

[Clerk's note.--End of questions submitted by Mr. Hobson. Questions submitted by Mr. Bonilla and the answers thereto follow:]

Small Unmanned Aerial Vehicles

Question. Secretary White, as we have discussed before, I am very interested in the new capabilities that Unmanned Aerial Vehicles (UAVs) are showing on the modern battlefield. UAVs are now being recognized as a vital tool.

I was pleased to see that the budget substantially increases our investment in UAVs. However, this increase will go primarily to larger

UAVs. I believe that there is still tremendous need for a small UAV. I know the Army has been examining this issue for some time now, but the time has come to get a small UAV on the battlefield.

Currently, the Congressionally funded Buster UAV, is mature enough to serve our ground forces. Buster weighs only ten pounds and has a night vision sensor. It is fully automated from take off to landing. It also has the ability to have way points programmed into the flight management system and accept inflight changes.

What role do you see for smaller UAVs (UAVs that are carried with the soldier)?

Answer. Unmanned systems will be a critical component at all levels of the FCS initiative. Current Army small unmanned aerial vehicle (SUAV) use is in the initial testing and developmental stages. SUAVs will provide an ``over-the-hill or building'' tactical reconnaissance and surveillance capability--a capability that currently does not exist. With this capability, the squad could have ``eye in the sky'' ability, as well as the ability to observe in an urban setting.

SUAVs are envisioned as part of a family of UAVs identified as Class I (backpackable) and Class II (off the fender). All are hand-launched, reusable SUAVs using existing commercial off-the-shelf technology. SUAV ground control stations are envisioned as small, handheld rugged computers ranging in size from laptop to personal digital assistant size capable of flight planning, flight monitoring, and video storage. The Army intends to pursue a common control interface for the SUAV ground control stations. This will ensure the ground control station is compatible with all SUAVs in use.

Buster, a small, fully-automated UAV in its fourth year of development, is among several potential candidates that can respond to the request for proposal issued in response to the FCS requirements.

Question. What is the Army doing to bring small UAVs to the battlefield?

Answer. The Army currently has several advanced concept technology demonstrations (ACTD) ongoing with DARPA that focus on a scalable, lift-augmented, ducted-fan SUAVs--basically a ``flying donut'' with the propeller in the middle. Called the micro air vehicle and organic air vehicle, these ACTDs provide for a SUAV that can hover outside windows, perch on a building, or loiter over a target where traditional, fixed-wing SUAVs cannot.

The micro air vehicle program provides a vertical take-off and landing UAV in the Class I category and is focused to support squad and platoon level units. The organic air is vehicle focused on platoon and company level units for the Class II requirement.

[Clerk's note.--End of questions submitted by Mr. Bonilla. Questions submitted by Mr. Frelinghuysen and the answers thereto follow:]

M855 ``Green Tip'' Ammunition

Question. In a recent visit to U.S. soldiers injured in combat overseas, I learned of an issue of concern to U.S. Special Operations forces in Afghanistan. Results of testing conducted at Picatinny Arsenal in New Jersey show that the 5.56mm M855 62-grain green tip projectile ``over-penetrates'' and does not effectively incapacitate the enemy at close range. Please comment on this concern.

Answer. After action reports from Afghanistan state that the M855 5.56mm, 62-grain green tip bullet does not immediately incapacitate or

kill an unprotected enemy at close range.

The projectile in the M855 cartridge was designed for superior penetration in hard and semi-hard targets, i.e., helmets and body armor, and targets at medium to long ranges. Its full metal jacketed, steel-tipped design is not the most efficient close quarters battle projectile.

The Army is investigating an improved close quarters projectile to be used strictly by Special Operations units in the war against terrorism. The Army is reviewing cartridges currently used by law enforcement agencies and conducting ballistic tests to determine the best 5.56mm close quarters projectile. In the near term, Special Operations Command has procured a commercial cartridge with a 77-grain projectile that has more mass to impart on the target and should improve the situation in Afghanistan.

[Clerk's note.--End of questions submitted by Mr. Frelinghuysen. Questions submitted by Mr. Lewis and the answers thereto follow:]

Fiscal Year 2003 Supplemental Requirements

Question. The global war on terrorism operations, ranging from the protective air cap in the homeland, to the Philippines, to Afghanistan, and operations in the Iraq area have placed enormous strains on your operating accounts. The Army reports that it has borrowed against both the third and fourth quarter funding for fiscal year 2003 to continue operations.

Secretary White, when do you expect that the Congress will receive a supplemental funding request?

Answer. We are optimistic that the President's request will be submitted in order for Congress to consider it before the Spring recess.

Question. Will we see one request, or more than one?

Answer. Based on current planning assumptions, we understand there will be one Department of Defense request.

Question. Please describe the costs that will be covered in the supplemental request. Will the estimated cost of war be covered?

Answer. We anticipate the Defense supplemental request will cover incremental costs for mobilized Reserve Component personnel and other military personnel costs, projected military operations, transportation, reconstitution, replenishment of munitions and equipment, and preparatory actions for military operations. The supplemental is intended to cover the cost of the war, based on current planning assumptions, with the exception of long-term reconstitution and recapitalization, which we cannot predict at this time.

Question. Will redeployment of our forces back to their home stations be covered?

Answer. Yes, the Army's request will include a component for returning the forces to their home stations. Total redeployment costs will be based on the actual return dates and cannot be estimated at this time. Not all redeployment costs will incur in fiscal year 2003.

Question. Will reconstitution costs be covered?

Answer. The Defense request will include a component for reconstitution. However, we cannot predict definitive and total reconstitution requirements at this time.

Question. Are funds included for post-war assistance to rebuild Iraq?

Answer. It is our understanding that the President's request will include funds for post-war assistance to Iraq.

Army Personnel Issues

Question. Please explain your active duty military personnel end strength levels to the Committee. What was the number of personnel on board in October when you started fiscal year 2003? Was that number over the authorized end strength level for the Army?

Answer. Fiscal year 2002 Active Army end strength, which approximates the starting strength for October 2002, was 486,543, which included 2,200 stop-loss personnel. This exceeded the authorized strength of 480,000 by 6,543. To meet current contingencies, end strength has continued to increase through fiscal year 2003. The projected fiscal year 2003 Active Army end strength is 508,800, including 20,600 stop-loss personnel. This will be 28,800 over the authorized strength of 480,000.

Question. Did the increase of personnel include those under a stop-loss action? Did it include any mobilized Reservists? If so, what were those numbers?

Answer. Stop-loss has significantly contributed to the increase in Active Army end strength. Since the end of fiscal year 2002, the Active Army end strength has grown by 22,200. Stop-loss accounts for approximately 18,400 of this Active Army end strength growth. This estimate does not include mobilized Reservists.

Question. To date, what is the number of Army National Guard and Army Reserve soldiers currently on active duty in support of the mobilization?

Answer. The total number of National Guard and Reserve soldiers on active duty to support the mobilization is 130,101. This includes 68,424 Army National Guard; 59,049 Army Reserve; 1,935 Individual Mobilization Augmentees; and 693 Individual Ready Reserve.

Question. What is the Army's current mobilization cap?

Answer. The Army's current mobilization cap is 168,003.

Question. What stop-loss action is currently in effect, and how many military personnel are affected by that?

Answer. The global war on terrorism and, operations in Iraq have required the Army to use limited stop-loss. The estimated fiscal year 2003 stop-loss end strength is 20,600, which includes a military occupational specialty stop-loss of 3,800 and an operational unit stop-loss of 16,800.

Question. Can you estimate what your end strength level will be in September 2003, the end of this fiscal year, and starting fiscal year 2004? What level of end strength is funded in the budget request for fiscal year 2004?

Answer. The current fiscal year 2003 Active Army end strength projection is 508,800, which includes an estimated stop-loss strength of 20,600 to support the global war on terrorism and operations in Iraq. The budgeted fiscal year 2004 end strength and average manyear strength are both 480,000. Average strength equates to personnel cost. The projected fiscal year 2004 Active Army end strength is 485,600 and, due to the high fiscal year 2004 starting strength, the projected fiscal year 2004 average manyear strength is 492,200. The projected fiscal year 2004 Active Army strength estimates assume that stop-loss is lifted at the end of fiscal year 2003 and that the Army accesses 72,500 personnel in fiscal year 2004 to maintain future force readiness.

Question. Currently, what is the monthly ``burn rate'' for your personnel costs?

Answer. The burn rate for active duty military personnel costs, to include those for soldiers mobilized in support of the global war on terrorism, is expected to average \$3.0 billion per month, from March through September 2003.

Question. When do you anticipate the military personnel accounts will run out of money? Are you using your third or fourth quarter funds now?

Answer. The Army is using third and fourth quarter military personnel funding now. Without supplemental funding, the Army will run out of Military Personnel, Army funding in June 2003.

Question. Are you considering implementing the authorities of the ``Feed and Forage Act''?

Answer. Without timely and sufficient supplemental funding, the Army would have to consider implementing the authorities of the ``Feed and Forage Act.''

Question. What is the amount of supplemental funding you will need for military pay and allowances through the end of this fiscal year?

Answer. We are currently working with the DoD Comptroller to refine our military pay and allowances requirements based on revised operational planning assumptions.

Joint Experimentation and Transformation

Question. In the fall of 2000, the Chief of Staff of the Army announced a far-reaching initiative to transform the Army's combat units and the systems that the Army would field to support those units. The effort continues along several lines including formation of the Stryker Brigade Combat Teams (SBCTs) and the associated variants of Stryker, and an aggressive effort to develop and field the Future Combat Systems.

General Shinseki, please comment on the progress the Army has made toward transforming itself over the past three years, and on those initiatives you feel are most important to maintaining the momentum for change.

Answer. With the unwavering support of the Administration and Congress, we have made great strides towards achieving our Army Vision of People, Readiness, and Transformation over the past three years.

Our people--soldiers, civilians, and their families--have risen to the challenges posed by our vision. For three consecutive years, the Army--Active, Army Reserve, and Army National Guard--has achieved its recruiting mission with quality recruits, who exceeded the Department of Defense (DoD) standard of 90 percent high school graduates. We have the lowest officer attrition rate in 15 years. Satisfaction indicators such as basic pay, retirements, and job satisfaction are at a 10-year high. We continue to meet our retention goals in all categories and components as we have every year since 1998. Our soldiers are seeing vast improvements in housing as a result of the Residential Communities Initiative. By the end of fiscal year 2005, the Army will have privatized over 71,000 homes, equaling 82 percent of the Army family housing inventory in the United States.

Our soldiers remain ready to meet the demands of an uncertain world and the war on terrorism. The Army has manned its warfighting units to 100 percent. We have maintained rotations of our battalions and brigades through our unmatched training centers and our battle command training program for both the Active and Reserve Component

headquarters. The Army has played an active role in Joint experimentation in such exercises as Millennium Challenge 2002. The Army has created the Installation Management Agency to streamline the control of our installations and enhance their readiness. We continue to enhance leadership through the transformation of the officer education system at every echelon from the upcoming Basic Officer's Leader Course for newlycommissioned officers up to the ongoing Army Strategic Leadership Program for general officers.

We have structured Army Transformation along three broad and mutually supporting vectors. We have laid the groundwork for developing the Objective Force: the Army Transformation Campaign Plan with supporting subordinate command plans; the operational and organizational plan for the Objective Force unit of action; and the operational requirements document for the Future Combat System (FCS) of systems. The Army has taken the lead in DoD's transformation of the acquisition process, in conjunction with the Defense Advanced Research Projects Agency, to contract for a Lead Systems Integrator to accelerate the transition of FCS to the system development and demonstration phase following the Milestone B decision in May. In just over three years from concept to execution, we developed a medium capability--the Stryker Brigade Combat Team--to fill the operational gap between our heavy and light forces. Once certified following successful completion of the operational evaluation, our first SBCT will achieve its initial operating capability providing a capability to the combatant commanders with a responsive force that can deploy where access is limited.

Our second SBCT will act as the test unit for the Stryker's initial operational test and evaluation this year and will achieve its certification in May 2004. The third SBCT will begin fielding new equipment this year while acting as the Army's test bed for a hybrid unit-manning concept. It will achieve its certification in May 2005. Funding for our fifth and sixth SBCTs remains on hold until we complete a study required by DoD that will examine possible enhancements to the SBCT force structure.

While our Legacy Force is presently engaged in fighting the war on terrorism, we have accelerated the insertion of transformational technologies such as unmanned aerial vehicles and blue force tracking to enhance the combat power and situational awareness of our deployed forces. We are proud of our efforts within these three vectors of Army Transformation.

Obviously the Army cannot rest on its laurels, we must continue our efforts to attain irreversible momentum for transforming the Army as part of the Joint force. On the materiel side, we must continue to fund the FCS and other transformational systems, such as the Warfighter Information Network-Tactical System, Medium Extended Air Defense System, the Joint Tactical Radio System, and the Army Airborne Command and Control System that will enable Objective Force. We must continue our efforts in the area of aviation modernization: to field the Comanche armed reconnaissance helicopter; to upgrade our Apache Longbow aircraft, and Chinook heavy lift aircraft in both Army and Special Operations variants; and to continue the development of unmanned aerial vehicles. We must field all six of our Stryker Brigade Combat Teams. We need to support our efforts to achieve Reserve Component transformation through actions such as the Army National Guard Restructuring Initiative. We must support initiatives that allow us to achieve the best mix of force structure within the Active and Reserve Components and allow us to develop a continuum of service. We must continue our

efforts to support our soldiers, civilians, families and retirees through efforts such as the Residential Communities Initiative and barracks revitalization. In addition, we require transformed business practices, which achieve the best value for the taxpayer's dollars, conserve limited resources for investment, enhance the management of our personnel, installations, and contracting, and accelerate innovation throughout the force. With your continued support for our efforts, we will fully realize the Army Vision--People, Readiness, and Transformation.

Question. Please explain the Army's experimentation plan, and how it supports both Army Transformation and Joint Forces Command's initiatives in the Joint arena.

Answer. The Army developed its Transformation Concept Development and Experimentation Campaign Plan (AT-CDEP) to integrate and synchronize Army experimentation to support Objective Force development, integrate Army concept development and experimentation, and shape and support Joint concept development and experimentation. The AT-CDEP's four components--exploratory concept development and experimentation (CD&E); developmental CD&E; Service/Joint engagement; and annual integrating experiments--provide the respective focus areas for innovative and aggressive experimentation, Objective Force development, integrating and linking Army and Joint experimentation and ensuring Objective Force networked system of systems are fully integrated within the Army and within a Joint context. This plan and its processes fully support DOD's transformational pillars to strengthen Joint operations, experiment with new approaches to warfare, exploit intelligence advantages, and develop transformational capabilities. The Army reviews and updates the AT-CDEP annually to integrate, synchronize, and prioritize Army experimentation with Joint experimentation through ongoing collaboration and long-range planning. The recent decision by the Army and Joint Forces Command to co-sponsor the upcoming Army Transformation Wargame as a fully joint wargame (Unified Quest 03) is an excellent example of this collaboration and integration. We see this trend continuing as Army Transformation becomes fully embedded within Joint transformation.

Redeployment of Army Forces From Europe

Question. Given that the Department of Defense is studying the possibility of adjusting force levels in Europe, does it also make sense to study possibly redeploying European-based forces, now deployed to Southwest Asia, back to the continental United States (CONUS) locations after operations in Southwest Asia are complete?

Answer. The Secretary of the Army has directed the Army Staff to conduct an extensive review of Army strategic posture looking out over the next ten years. The intent is to ensure that the Army is able to meet all the requirements of the combatant commanders and is well positioned to seamlessly transform to the Objective Force. Concurrently, the Secretary of Defense has directed that his staff, the Joint Staff, and the combatant commanders review future posture and overseas basing. The Army is working in coordination with these efforts to ensure the synchronization necessary to meet the Army's responsibilities for flexible power projection and sustained land dominance as part of the Joint Force. The Army will continue to work closely with the combatant commanders, the Joint Staff, and the Office of the Secretary of Defense to ensure we have the appropriate posture and force structure to meet both the current strategic requirements and

the many future challenges to our national security.

Soldier Support Equipment

Question. General Shinseki, please define by type of equipment and the unit requirements for soldier support equipment such as body armor, ballistic plates, basic communications equipment, basic navigation equipment, cold weather clothing and related items.

Answer. The Army is dedicated to reducing the weight our soldiers have to carry. Our benchmark soldier--the Infantryman--currently carries a standard basic load of 77 pounds; the heaviest load soldiers carry on the battlefield. The Army leadership directed an objective reduction in that overall weight to 40 pounds. The Army's Rapid Fielding Initiative (RFI) best illustrates our efforts to transform and provide improved, reduced-weight soldier support equipment. Program Executive Office--Soldier (PEO-Soldier) provided much of this equipment to units in current operations.

This equipment express includes advanced environmental protection, individual protection, lethality enhancements, leader systems and specific equipment for military operations in urban terrain (MOUT). The soldier environmental protection equipment includes a new cold weather cap, silk weight underwear, Coolmax T-shirts, black fleece bibs, Smartwool socks, and improved desert boots. Individual protective equipment enhancements include the Advanced Combat Helmet, sand/wind/dust goggles, Interceptor Body Armor, and knee and elbow pads. New lethality enhancements include improved close combat optics, target acquisition scopes, machine-gun optics for the squad automatic machine gun, rail kits for light and medium weight machine guns, and new M4/M16 rifle magazines. Advanced leader systems include the multi-band, inter-squad, tactical radio; mini-global positioning system; small binoculars; and cutting edge laser target designators. MOUT equipment advances embrace new assault ladders, grappling hooks, quickie saws, door rams, and entry tools.

Question. General Shinseki, please tell us what the Army is learning about soldier's equipment as we prosecute the global war on terrorism in disparate, challenging environments, like Afghanistan, and as we prepare for a possible conflict with Iraq. In your response please address such items as body armor, hydration systems, boots, undergarments, weapons optics and enhancements, communications gear, and night vision devices.

Answer. The primary lesson learned from our soldiers who had served in Afghanistan was that soldiers and units required items of field equipment, which they had not received through normal supply procedures. In many cases, soldiers were buying items with their personal funds. These shortages represent the highest-priority, Army-wide soldier equipment shortages. Based on these lessons learned, the Army senior leadership directed PEO-Soldier to initiate the RFI. The aforementioned items are being procured as a result of the RFI.

Question. Are there new or contingency item fielding plans? If so, who is receiving this equipment and what are the timelines? Will Guard and Reserve soldiers get this equipment?

Answer. Recognizing that both funding and commercial production rates for equipment would limit the scope of RFI, and based on Army guidance to focus on the ``soldier who sleeps on the ground and walks a patrol,'' we decided that RFI would focus strictly on the deployable Brigade Combat Teams (BCT). This puts the equipment into the hands of the infantry battalions, engineer, squads, medics, artillery forward

observers, air defense teams, and military police that are at the very sharpest point of the spear.

In fiscal year 2003, the RFI provided equipment to units in current operations. To institutionalize and continue the RFI, we have identified the requirement to resource nine BCTs in fiscal year 2004--a requirement which is currently unfunded. The Army is competing funds in the Program Objective Memorandum for RFI to continue at a rate of nine BCTs per year. At that rate, each BCT will be revisited approximately every fourth year. This accomplishes one of the significant goals of RFI to get newer, better, commercially available equipment into the hands of our troops as quickly as possible. This will allow the Army to field to each BCT new equipment that capitalizes on the rapid advances in the commercial sector. A new cutting-edge technology weapon sight, a small lighter hand-held GPS, and improved cold-weather gear are just a few examples of the types of equipment that develop and improve rapidly in the commercial sector. The Army's plan is to field all Active and some Reserve Component units in the first round of RFI.

Question. The Committee has heard reports of deploying soldiers paying for soldier support equipment (boots, some clothing items, gloves, etc.) out of their own pockets. How widespread is this, and does the Army have a plan to address this?

Answer. While the Army cannot track every individual expenditure, personnel in some units have spent their own funds to buy private equipment ranging from socks to commercial GPS units. Lessons learned following combat operations in Afghanistan in 2002 validated this fact prompting the Army to direct PEO-Soldier to initiate the RFI.

PEO-Soldier assessed what items soldiers were procuring and what was currently not in the Army supply system. These were mainly commercial items, newly available on the market, which had not been previously considered for procurement or fielding by the Army. PEO-Soldier conducted follow-up visits with soldiers and leaders to verify lessons learned and validate required items. In November 2002, PEO-Soldier fielded 15 types of equipment units preparing to deploy in support of Operation Enduring Freedom. PEO-Soldier used \$11 million of internal funds for this equipment.

The Army organized a team to extend RFI to the remainder of the Army and compiled a list of equipment that would be most useful to soldiers in the field. After reviewing and prioritizing the list, a standard ``kit'' for each BCT was approved and validated. The RFI kit is in the process of being fielded and includes items that soldiers were most commonly buying for themselves.

Question. The Committee understands that the Army and other services have taken steps recently to ensure that our soldiers have the right equipment should we face chemical or biological weapons attacks in Southwest Asia. Please comment on the state of readiness in this area and what you've done to prepare for this possibility.

Answer. Over the past nine months, the Army has aggressively addressed over 60 chemical, biological, radiological, and nuclear (CBRN) issues and taken preparatory actions in support of combatant commanders. In broad terms, the Army has increased force readiness and combat capability in individual protective equipment, biological warfare defense, decontamination, collective protection, medical support to CBRN defense, radiological detection, chemical detection, and sensitive site exploitation and elimination operations.

U.S. forces serving in Iraq and throughout the Gulf region are trained and ready to operate in contaminated environments. Nuclear, biological, and chemical contamination on the battlefield poses

significant challenges and difficulties, but these challenges are not insurmountable. Our forces are trained, and they have the equipment they need to survive and sustain operations in such an environment.

Question. What is the Army doing to insure that non-deployed units are receiving the same high levels of equipment, and not having to sacrifice training funds to buy individual equipment?

Answer. Non-deployed units have continued to conduct tough, realistic training. The Army's OPTEMPO funding program remains intact, and nondeployed units are executing aggressive home station and combined arms training strategies. Acquisition project managers are funded to acquire and field modernized individual equipment, and units are budgeted to enable them to replenish the equipment to which they are authorized.

Guard and Reserve Force Protection Mission

Question. Mr. Secretary, please explain how the Reserve component forces have been or are involved in anti-terrorism/force protection missions this year.

Answer. Reserve component (RC) forces have been and are still involved in anti-terrorism/force protection missions by supporting Active component forces within and outside continental United States locations, with security forces conducting access control and military police duties on Active and Reserve installations. RC forces also provide military intelligence support for anti-terrorism programs and other operations. Additionally, RC forces support the Active component by working in military operation centers and support federal government agencies in intelligence analysis and foreign language interpretations.

Question. What is the number of Reserve forces currently mobilized for Operation Noble Eagle to fill those requirements?

Answer. The Army has approximately 18,100 National Guard soldiers providing force protection augmentation at Army and Air Force installations. The Army has approximately 9,600 National Guard soldiers providing force protection augmentation at Army installations and approximately 8,500 National Guard soldiers providing force protection augmentation at Air Force installations.

Question. The Committee understands that the Air Force lacks the required number of security forces to provide the appropriate level of security for their facilities worldwide. Please explain why the Army National Guard is supplying soldiers to support the Air Force for their security requirements.

Answer. The Office of the Secretary of Defense and the Air Force asked the Army to provide force protection augmentation to Air Force installations. After analysis and further coordination with the Air Force, we determined the Army could support the request. The Army and Air Force developed a memorandum of agreement where the Army would provide force protection augmentation to selected Air Force installations for up to two years. Before the end of the first year, the Army and Air Force will meet to determine the level of support for the second year. The Army expects to complete this mission in December 2004.

Question. What is the number of Reserve personnel mobilized, and the length of time they will be providing security forces?

Answer. The Army has approximately 18,100 National Guard soldiers providing force protection augmentation at Army and Air Force installations. The Army rotation policy requires soldiers and units executing missions outside the continental United States to serve for

six months and soldiers and units executing missions within the continental United States to serve for 12 months. We expect the mission to end in December 2004.

At this time, we cannot give a firm time when Reserve personnel force protection augmentation will cease. The requirement to provide force protection augmentation is based on threat and vulnerability assessments, commitment of Active Component forces at various installations, identification of critical infrastructure sites, and the force protection condition level. As we prepare for the follow-on rotation of forces, we review each one of these factors to determine if we can reduce or eliminate the augmentation.

Question. What are the incremental personnel and O&M costs associated with this mission for the Army? Describe the funding agreement between the Army and Air Force.

Answer. The current memorandum of agreement between the Air Force and Army provides for full reimbursement for the Army's force protection support at Air Force installations. Under this agreement, there are no incremental costs to the Army, as the Air Force pays all costs.

Anti-Terrorism and Force Protection (AT/FP)

Question. The fiscal year 2002 Army budget provided \$345 million for anti-terrorism and force protection. That amount funded nearly 100 percent of the perceived requirement. In the current fiscal year Army funding for anti-terrorism and force protection grew to \$505 million as a result of congressional increases. However, the requirement for fiscal year 2003 is assessed at \$615 million. In the fiscal year 2004 request, the Army has sustained the increased level of AT/FP funding from 2003, but the estimated requirement has grown to \$945 million.

Please discuss the Army's method or management framework for establishing anti-terrorism/force protection requirements, and the progress being made in achieving goals.

Answer. The Army is directed by Department of Defense directives and instructions to establish its own guidance, which is accomplished in Army Regulation (AR) 525-13, a regulation for all Army Major Commands (MACOMs) to execute their AT programs. The regulatory requirements and taskings provide an assessment checklist for each MACOM level AT program manager to assess their AT program as well as their subordinate units' AT programs. For several years, the Army has conducted Force Protection Assessment Team (FPAT) assessments of each of the Army MACOM AT programs by using the requirements in AR 525-13 to assess the MACOMs.

The Army also manages the overall FP programs by funding MACOM regulatory requirements. Based on the findings of these FPAT assessments, the improving of the overall FP program requirements, and the shift to controlled-access status at all Army installations, funding requirements have increased in recent years. The Army prioritizes MACOM funding requirements based on threats and vulnerabilities to their installations. The Army has made significant progress in meeting the new AT/FP requirements for our installations. In fiscal year 2003 approximately \$211 million will be spent on AT/FP military construction projects related to installation access control. In addition, approximately \$302.4 million of Other Procurement, Army funds will be spent on physical security equipment controlling installation access.

Question. How do you rate the Army, overall, in terms of AT/FP

preparedness?

Answer. The Army rating scheme is based on red, amber, and green scores. The Army rates itself in the area of AT/FP preparedness as amber. This reflects that some deficiencies still exist, but with a limited impact on mission accomplishment. Our annual FPAT assessment of MACOM AT/FP preparedness and the overall rating of their FP programs show steady improvement. In addition, the Army's initiative to control installation access has given command emphasis to the AT/FP preparedness, which will increasingly improve our overall rating. The access control initiative is being accomplished through both enhanced physical security improvements and deployment of security forces to conduct force protection within and outside the continental United States.

Weapons of Mass Destruction--Civil Support Teams (WMD-CST)

Question. The WMD-CST teams are response units that support civil authorities when responding to a weapons of mass destruction situation. The Congress currently has authorized 32 Civil Support Teams. In the 2003 Defense Authorization Act, language was inserted requiring the Army to provide at least one WMD Civil Support Team to each state, and to report within six months on a plan for the establishment, manning, equipping, and training of these additional teams.

Mr. Secretary, what is the status of that report?

Answer. The draft report regarding section 1403 of the 2003 Defense Authorization Act was sent to the Assistant Secretary of Defense for Homeland Defense. They will forward it to Congress after their review and approval. We expect the report will be submitted to Congress before the June 2, 2003, deadline.

Question. How long do you estimate it will take the Army to establish 23 additional teams for those states that do not currently have one?

Answer. We estimate that it will take between 18 and 24 months to establish the additional 23 teams. This period includes manning, equipping, training, and certification of these teams.

Question. What is the total cost for standing up those remaining 23 teams, and what is the number of full-time National Guard personnel that will be required to man them?

Answer. The total cost to stand up the remaining 23 teams is approximately \$192.6 million in fiscal year 2005 and fiscal year 2006. A total of 506 Active Guard/Reserve positions are required to accomplish the manning piece. This personnel increase requires an end strength authorization increase by the same amount.

Question. Break out, for the record, the cost per team for the National Guard personnel costs, their training and equipment costs.

Answer. The total cost to stand up each team is approximately \$8.5 million in fiscal year 2005. This figure includes approximately \$1.5 million for military construction costs per team. Personnel costs to the Army Guard are \$1.66 million and about \$356,000 for the Air Guard. Training and equipping costs will run about \$1.6 million in operation and maintenance for the Army Guard and about \$817,000 in operations and maintenance for the Army. Equipping costs for the Chemical and Biological Defense Program items will cost approximately \$2.57 million.

Question. Are there any funds included in the budget request for these additional teams?

Answer. No. There is currently no funding in the fiscal year 2004 budget to establish additional WMD Civil Support Teams.

Rising Cost of Readiness

Question. One of the recurring challenges the Army faces in managing operation and maintenance accounts is the rising cost of operating equipment, be it M-1 Tanks, Bradleys, or helicopters. Growth in operating costs is squeezing out desired investment in new systems. In a February 2003 report, the General Accounting Office found that the military services pay little attention to operating and support costs and readiness during development, when there is the greatest opportunity to affect those costs positively. Rather the services focus on technical achievement, featuring immature technologies during development and fielding. Then the services pay the price down the road when operating and support costs greatly exceed expectations. And even though operating and support costs make up, on average, about 72 percent of the life cycle cost of a system, the operators and maintainers have little input to the development process.

Do you agree with the assessment that little attention is paid to operating and support costs and readiness during weapon system development, when there is the greatest opportunity to affect those costs?

Answer. We agree that in the past, the Army did not put enough emphasis on reliability, availability, and maintainability during development for some of its weapon systems, which resulted in increased operating and support costs and difficulty in maintaining readiness standards. However, that is not the case today. The Army has undertaken several initiatives to reduce weapon system operating and support costs while achieving higher levels of readiness.

The Army has placed greater emphasis on operational requirement documents for weapon systems, as well as ensuring reliability, availability, and maintainability requirements are clearly stated and designated as key performance parameters, when appropriate, to ensure requirements are achieved. This increased emphasis will ensure that established levels of reliability, availability, and maintainability are designed into weapon systems and result in lower operating and support costs and higher readiness levels.

The Army is participating with OSD in a program called Reduction of Total Ownership Costs, which focuses on reducing weapon systems operating and support costs. The Department of Defense established 30 pilot programs, 10 from each service, with a goal to reduce total ownership costs by 20 percent by fiscal year 2005. Many of these pilot programs are developmental programs. While these programs are still ongoing, many have met the 20 percent goal, and others have made substantial progress in reducing total ownership costs. OSD sponsors quarterly pilot program forums to provide continuous assessment of the programs' progress and keep them on track. In addition, the Army has established an office to provide oversight and emphasis on weapon systems supportability and operating and support cost reductions. This office conducts assessments of weapon system programs to improve supportability and cost effectiveness throughout their life cycle.

Question. What do you propose as process improvements to gain control of total ownership costs of our military equipment?

Answer. The Army is working to identify and analyze the increase in operating and sustaining costs and is leading a multi-organizational operating and sustaining cost analysis work group to develop near-term tactical and long-term strategic plans for reducing operating and sustaining costs.

Question. When the Army first developed and procured the current fleet of combat vehicles and aircraft nearly 20 years ago, planning figures for the life span of this equipment were significantly different from the OPTEMPO the Army experienced in the 1990s and thus far this decade, particularly since 9-11. What impact has this had on Army recapitalization plans, and on the rising costs of spare parts and maintenance for equipment that is aging faster than originally anticipated?

Answer. High OPTEMPO along with the operation and support costs associated with aging equipment are the main reasons that the recapitalization program exists. In fiscal year 2002-2009 the Army will spend over \$21 billion in operation and maintenance and procurement appropriations to address 17 weapon systems that are critical to Army Transformation. However, recent operations and the rising costs of Transformation have caused the Army to significantly reduce the procurement spending on its recapitalization program. As a result, less than 40 percent of the combined fleets of the 17 systems will be recapitalized. Currently, there is no synchronized sustainment strategy to address the remaining fleets.

Question. How are these costs being managed over the Army Future Years Defense Plan (FYDP)?

Answer. A working group was created to identify and analyze the increase in operation and support costs over the FYDP. An increase in operation and maintenance funding for the Army's depot maintenance program, of which recapitalization is a subsidiary, has been projected to increase from \$1 billion in fiscal year 2003 to over 1.6 billion in fiscal 2009. This funding will allow the Army to meet the goal of funding 90 percent of its depot maintenance requirements.

Consolidation of the Military Personnel Accounts

Question. The fiscal year 2004 budget request recommends consolidating the six Guard and Reserve military personnel accounts with their respective active duty military personnel appropriations. The budget request proposes that the Reserves personnel pay accounts be Budget Activity 7, and the National Guard's personnel pay accounts be Budget Activity 8 under the active duty accounts.

Mr. Secretary please explain the reasons the OSD Comptroller had for merging the pay accounts into one appropriation per Service.

Answer. The military personnel pay accounts were merged to provide increased management flexibility, specifically in terms of reprogramming. Further, the Office of the Secretary of Defense anticipates the consolidation will result in an eventual net reduction of administrative workload and streamline execution for all components.

Question. What level or degree of increased flexibility does the Army gain from this consolidation?

Answer. Consolidating Guard and Reserve funds with Active Army funds reduces the number of budget activities and so increases Guard and Reserve flexibility.

Question. Will the Chiefs of the Reserve Components have full management and control of their financial resources in order to execute their Title 10 responsibilities for trained and ready forces?

Answer. Yes. Under the consolidation, the Army Reserve and the National Guard will both continue to exercise full management and control of their resources under Title 10. The consolidated appropriation preserves the current appropriation act language applicable to the Reserve and National Guard.

Question. Having separate appropriations accounts for the Active and Reserve Components allows Congress to monitor how well the services are executing their programs. What assurance can you give the Committee that the Active Component will not use the Reserve budget activities to fund their own bills or shortfalls?

Answer. The Army can give complete assurance that the Component budgets will be executed with the intent of the appropriation. Each Component's execution will remain visible and cannot be impacted without reprogramming actions, which require Office of the Secretary of Defense oversight and Congressional approval if greater than \$10 million.

Reserve Component Missions

Question. The 2001 Quadrennial Defense Review directed a comprehensive review of the Reserve Components contributions to National Defense. One aspect of transformation, addressed in this Review, is the appropriate mix of Active and Reserve forces to meet Department of Defense's missions and responsibilities.

Mr. Secretary, are you considering transferring some combat support missions that are primarily performed by Reserve forces to the active duty military?

Answer. Yes. We are considering several options.

Question. If so, explain what Reserve forces you would restructure and the reasons for the shift.

Answer. The Army's Active and Reserve Component force mix is the result of deliberate actions to balance risks and priorities in light of operational requirements as well as resource constraints. The Army continues to adjust its force structure based on the ``1-4-2-1'' force-sizing construct. The Army's force mix is designed to support the geographic combatant commander's requirements and is determined using the Total Army Analysis (TAA) process. To stay within constant end strength levels, adding capabilities to the Active force will require the transfer of some mission capabilities between the Active and Reserve force. A number of options exist to reduce risk, including the conversion of lower demand structure inside the active force, converting key capabilities held in the Reserve Component (RC) but needed intermittently, and changes in Reserve personnel management to increase access by enhancing volunteerism and diminishing involuntary mobilization.

Currently, the Office of the Secretary of Defense in conjunction with the Joint Staff has undertaken a study to improve operational availability of all military forces. As part of this study, the Active Component/Reserve Component (AC/RC) mix is being studied in the context of short notice, short duration major combat operations. This study is incomplete and will be continued as part of Defense planning for fiscal year 2005 to determine any recommended force structure changes.

Question. The ``Total Force'' concept has resulted in a large percentage of the combat support and combat service support units being located in the Reserves. Would moving capabilities from the Reserves to the Active Component eliminate Reserve units, or reduce the Reserve Components' end strength levels?

Answer. I do not believe shifting capabilities between the Active and Reserve Components would impact Reserve Component end strength. As you are aware, much of the force found in the Reserve Components today is a result of decisions made to support the Total Force Policy and previous defense strategy. With the draw down during the 1990s, the

Army could not maintain all of its warfighting capability in the active force and decided to place many highly specialized capabilities in the Reserve Components. The Reserve Components were configured and resourced to provide many specialized capabilities anticipated to be needed only in a protracted major theater war. Given the requirements of the new defense strategy and the high level of Reserve Component use, these force structure decisions are under review to determine the proper active and reserve force mix. We are exploring the impact of Active and Reserve Component transformation initiatives on mobilization and readiness before we make a final determination as to the proper AC/RC force mix. However, among the RC transformation initiatives is an endeavor to eliminate unready units by bringing force structure levels down to better match end strength. This will dramatically increase readiness by focusing resources on high-demand, high-OPTEMPO forces and creating rotational depth in capabilities such as civil affairs, psychological operations, biological detection, military intelligence, and military police units.

Question. Do you have an estimate of what it will cost to shift Reserve force capabilities to the active military?

Answer. No, we do not have an estimate at this time.

Spare Parts Shortfalls

Question. The Committee often hears from military units at their home bases, or when they are deployed, that the Army suffers shortages of key spare parts. In the budget request for fiscal year 2004, the Army has realigned substantial funding, over \$650 million, to increase the spare parts inventory.

Please discuss the spare parts issue, and the trade offs the Army has made in order to free up the additional funds for spare parts.

Answer. The Army has had a long-standing problem with spares. In the mid 1990's, the Army systematically reduced our strategic inventories supporting all major weapon systems. This decision was made in response to DoD's attempt to right size inventories and implement stock funding of depot level reparables while adjusting the force structure after the end of the Cold War. For several years, high weapon system readiness rates and high supply stock-availability rates were maintained by redistribution of excess inventories and local repair of components. However, in recent years, the combination of increased OPTEMPO, aging weapon systems, and reduced national level stocks negatively impacted weapons system readiness and supply availability.

In early 2000, the Army logistics and financial communities started working to develop, validate, and fund the increased requirement for spares. The Army continued to work the issue internally, but this requirement was competing with a multitude of other force structure and operational requirements. As the global war on terrorism started to unfold, the requirement continued to grow until the fiscal year 2003 unfinanced requirement reached \$1.563 billion in August 2002. Based on a critical readiness need to replenish depleted peacetime inventories of repair parts and support the global war on terrorism, the Army decided to take the necessary level of risk in the base operations support accounts in the active and Reserve Component operations and maintenance appropriations for both fiscal year 2003 and fiscal year 2004. By initiating this action, the Army is able to order long lead-time parts for inventory in anticipation of unit demands in fiscal year 2004. Because readiness of the force is especially paramount during the global war on terrorism and the uncertainty of a war with Iraq, the

Army took this measured risk with the base operations support accounts.

Recapitalization Programs

Question. The Army's recapitalization program is shown to be fully funded for fiscal year 2004, with program growth of about \$200 million.

What is your assessment of the progress being made in the Army Recapitalization Program?

Answer. The Army's Recapitalization Program continues to achieve success. During fiscal year 2002, the Army exceeded expectations achieving 102 percent of the projected systems for induction to be recapitalized. Through the second quarter of fiscal year 2003, we have already achieved 60 percent of the total fiscal year 2003 goal. Certain systems scheduled for recapitalization in the third and fourth quarters of fiscal year 2003 are ahead of the original projected quarterly goals and are already inducted for recapitalization. We again expect to achieve the goal of 100 percent of the projected systems for induction to be recapitalized in fiscal year 2003.

Question. Have you added or deleted items for fiscal year 2004?

Answer. There, have been no recapitalization system additions or deletions for fiscal year 2004. The 17 Army recapitalization programs are the AH-64D Apache; UH-60 Black Hawk; CH-47 Chinook; M1 Abrams; M2/M3 Bradley; M270A1 Multiple Launch Rocket System; Patriot Ground Support Equipment; Field Artillery Ammunition Supply Vehicle; M113 Family of Vehicles; Heavy Expanded Mobility Tactical Truck; M88 Recovery Vehicle; Electronic Shops Shelter; High-Mobility Multipurpose Wheeled Vehicle; TPQ-36 Firefinder Radar; M9 Armored Combat Earthmover; Small Emplacement Excavator; and the Armored Vehicle Launched Bridge.

The following variants within the 17 will receive no recapitalization funding starting in fiscal year 2004: M1A2 Abrams SEP retrofit; M2A3/M3A3 Bradley; M88A2 Recovery Vehicle; and the Armored Vehicle Launched Bridge.

Aircrew Training Hours

Question. Please discuss Flight School XXI. Does Flight School XXI change the Army's flying hour requirement of 14.5 hours per crew per month?

Answer. Implementation of Flight School XXI will enhance unit capabilities by providing better-trained aviators. Flight School XXI will achieve this result by assuring more aviator time in the cockpit of their primary rated aircraft, with less time in training-specific aircraft. Therefore, Flight School XXI will positively impact the quality of aviator training, even as it complements ongoing Army efforts with parts, maintenance, and deployment readiness issues to help assure the consistent execution of the established quantitative standard of 14.5 hours per crew per month.

All of Flight School XXI is funded within the aviation training base and does not change the Army's requirement of 14.5 hours per crew per month. Additionally, with a five-week average shorter course length, Flight School XXI will assist in decreasing pilot shortages in units.

Question. Is the 14.5 hours per crew per month requirement fully funded in the fiscal year 2004 budget request?

Answer. First, let me assure you that the Army intends to meet its fiscal year 2004 flying hour goal of 14.5 hours per active duty crew per month. We continue to train to maintain readiness and remain

committed to achieving goals established that assure readiness, like that of 14.5 flying hours per month.

It is true that achievement of this aviation flight-training goal is sometimes impacted by factors beyond the control of the unit commander. Those external factors include aircraft downtime due to Safety of Flight maintenance issues and, to some extent, transformation and deployments. Our recent history with these factors has led the Army to budget for the fiscal year 2001 through 2002 historical average of 13.1 hours per crew per month, with plans to internally finance up to 14.5 hours as the impact of these factors for fiscal year 2004 emerge. Having said that, it is true that the Army is taking some small risk in the flying hour program for fiscal year 2004. However, this risk is prudent because it allows the Army to invest more heavily in depot maintenance and spare parts to reduce aircraft downtime. The better we do at arresting potential aviation parts and maintenance issues, the better we will do at consistent execution of our flight hour training standard. We will closely monitor execution of the flying hour program in fiscal year 2004 and make necessary adjustments to ensure that funding is not the reason for not executing the full 14.5 hour per month aviation training standard.

Question. Since student pilots spend a shorter overall time in flight school, is there a cost savings?

Answer. Although pilots spend less time in Flight School XXI and fly fewer hours there, they spend more time in simulation training and fly more hours in modernized ``go to war'' aircraft instead of legacy aircraft. Although the total number of hours in Flight School XXI decreases, the hours saved are offset as a result of the increased operating cost associated with flying modernized aircraft.

Facilities Sustainment, Restoration, and Modernization

Question. In the fiscal year 2004 budget request, Sustainment, Restoration and Modernization (SRM) of facilities is funded at 84 percent overall, with the sustainment piece funded at 93 percent as mandated by OSD.

What is the status of the Army's Barracks Upgrade Program?

Answer. Congressional establishment of major command baselines for SRM funding which eliminated our centrally managed OMA-funded barracks upgrade program renovations in fiscal year 2002 and 2003, in addition to internal Department priorities in fiscal year 2004, have caused us to delay completion of our barracks modernization beyond 2009. The Army does not meet DoD's goal of eliminating inadequate permanent party barracks by 2007.

Question. Please describe the Army's progress toward achieving the DoD goal of a 67-year recapitalization rate by 2007.

Answer. The Army-wide recapitalization rate for fiscal year 2004 is 144 years. Our goal is to increase recapitalization investment and meet the 67-year rate by 2007.

Question. What is the impact on mission accomplishment of the current state of facilities?

Answer. The overall condition rating of Army facilities is C-3, which impairs mission performance.

Question. In what geographic areas are the more severe facilities maintenance problems?

Answer. The geographic areas with the most severe facilities maintenance problems are those with extreme climatic conditions such as areas affected by very cold temperatures, corrosive salt, sand, and

high humidity. Some of the worst geographic locations include facilities in Korea and Germany.

Army Installation Management Agency

Question. The Army has taken aggressive action to transform the management of installations. Integral to that effort has been the creation of the Installation Management Agency. The new Army field agency, activated on October 1st of 2002, is intended to provide a corporate, senior level focus on installation management in support of the mission commanders. The new agency is designed to achieve efficiencies, ensure consistency and eliminate migration of funds from base operating accounts, such as facilities maintenance, environmental, and family programs.

Secretary White, please describe your progress in transitioning base operations to the Installation Management Agency?

Answer. The Installation Management Agency (IMA) has achieved initial operational capability and is performing its vital mission of managing the Army's installations. IMA is meeting the mobilization, deployment, redeployment, and other related support requirements in support of the global war on terrorism and operations in Iraq. IMA is partnered with Network Enterprise Technology Command and the Army Contracting Agency to improve efficiencies.

Fiscal year 2003 represents a transition year for management of manpower and dollars as documentation and appropriations realign to the agency. This transition, although not complete, has already proven beneficial to warfighting commanders and major commands who have been able to focus on operations and training, with IMA fully in charge of running the installations and caring for soldiers and families. In addition, the Army Reserve integrated its headquarters engineering functions into the IMA headquarters, with an additional policy office established at the Assistant Chief of Staff for Installation Management. The transfer of the remaining Army Reserve headquarters base operations functions will be accomplished in conjunction with the Army Reserve restructuring initiatives. IMA will achieve full operational capability by the end of fiscal year 2004.

Question. General Shinseki, why are the garrison and area support group commanders senior-rated by the local senior mission commander? How can the garrison commanders ensure Army-wide consistency in funding, and avoid migration of funds, if the local mission commander holds the keys to the garrison commander's career? Isn't this like having an auditor's future controlled by those he is auditing?

Answer. Making the senior mission commander on the installation the garrison commander's senior rater ensures that the garrison commander's performance is responsive to the priorities of the installation. We balance that by having the IMA region director rate the garrison commander. Designating the IMA region director as rater provides the corporate point of view on the garrison commander's ability to implement the efficiencies and uniformed level of service required for all Army installations within a given region. This designation of the senior rater is also consistent with Army officer evaluation policy and consistent with rating schemes of other officers on the installation. Senior raters are senior-level officials with broad experience and are able to evaluate performance across their installations. For the Army to successfully execute its mission, IMA, the major commands, and the senior mission commanders on installations must all work as one team in very close partnership.

Army Contracting Agency

Question. With the creation of the Army Contracting Agency, the Army has realigned previously decentralized contracting processes under one organization. The Army's goal was to eliminate redundant contracts, and to leverage the buying power of Army wide requirements.

Mr. Secretary, please describe the implementation of the Army Contracting Agency, and the efficiencies and savings you have achieved.

Answer. The Army Contracting Agency (ACA) was established as part of Army Transformation efforts. In accordance with our vision of the ACA, we have not yet achieved any identifiable savings in the seven months since the ACA stood up. The plan is to realize savings in the fiscal year 2004-2006 timeframe. The ACA has eight subordinate contracting organizations: a northern and southern regional headquarters aligned with the continental United States, Installation Management Activity regions; Information Technology, E-Commerce, and Commercial Contracting Center; and five contracting activities outside the continental United States.

Each Army installation will retain its local directorate of contracting (DOC), which will continue to perform full contract support for locally awarded contract actions and provide advice and assistance for centrally awarded actions. The DOC awards local base operations contracts under \$500,000 and places delivery/task orders against established contract vehicles regardless of dollar value. In addition, the DOC performs contract administration for locally and centrally awarded contracts, manages local purchase card programs, and conducts emergency and safety buys above \$500,000.

The ACA will generate savings through reduced cost of purchasing by eliminating duplicative overhead, obtaining efficiencies from regionalized and national contracts, and exploiting electronic commerce technologies. Again, the ACA expects to realize savings over a three-year period from fiscal year 2004-2006. The target personnel savings will be a net reduction of about 230 spaces. Program savings will be achieved on a case-by-case basis. Further savings will be obtained by economies of scale through negotiating single requirements, Army wide with industry providers.

Basic Officer Leadership Course

Question. The Army recently approved far-reaching changes to its Officer Education System that impact Basic and Advanced (Career) Officer courses as well as Command and General Staff College instruction. This course moves away from the traditional branch oriented officer basic in favor of a program called the Basic Officer Leadership Course. Under the new course, new officers would first spend about six weeks at a common location (Fort Benning) learning the basics of leadership, physical fitness, and individual weapons proficiency. Then the officers would move on to branch specific training at the branch school houses, for example tank training at Fort Knox.

General Shinseki, please explain the rationale behind the changes in the Officer Education System, the anticipated positive developments these changes should bring, and the risks associated with these changes.

Answer. As the Army transforms to the Objective Force to meet the challenges of the 21st Century security environment, so too must the Army transform its officer education system (OES) to train and educate

the leaders who will command and control that force. Transformation of OES is based on a documented rationale for change, including findings and recommendations from the Army Training and Leader Development Panel (ATLDP) officer study published in February 2001.

The ATLDP identified the current OES as not meeting the leader development requirements of the contemporary operational environment. This complex, information-centric operational environment, characterized by uncertainty and ambiguity, rapid tempo, and compression of strategic and tactical focus, requires officers to be self-aware, adaptive, full-spectrum leaders. To meet Army needs and officer expectations, a transformed OES will provide the right education, in the right medium, to the right leader, at the right time and place.

The Army strategic objective is to develop more capable, confident leaders through continuous investment in personal growth and professional development throughout their careers. The Army intends to achieve this objective by improving and sustaining leader development through an experientially based education and training model enabled by increased leveraging of technology. This model will support the Army service culture and warrior ethos and produce leaders who can resolve dilemmas under stress, make decisions, and lead formations. Risks are associated with timely development of the advanced distance learning courseware and modules required to implement the model.

Question. What are the additional funding requirements associated with changing the Officer Education System?

Answer. The Army will execute three high-payoff OES initiatives: for lieutenants--the Basic Officer Leader Course (BOLC); for captains--the Combined Arms Staff Course (CASC) for staff officers and the Combined Arms Battle Command Course (CABCC) for company commanders; and for majors--Intermediate Level Education (ILE).

BOLC ensures a tough, standardized, small-unit leadership experience that progresses from pre-commissioning, to the initial entry field leadership experience, and branch technical/tactical training. BOLC provides a small unit leader training continuum and a common Army standard for small unit leadership. Additional funding requirements for BOLC fiscal year 2003 to fiscal year 2009 are \$47.7 million.

Captains OES synchronizes training with assigned duty positions. This concept also reduces personnel and family turbulence. The CASC and the CABCC provide assignment-oriented training for staff officers and company commanders, respectively. Most importantly, CASC and CABCC will return approximately 1,500 captains to the field and give senior commanders more responsibility for junior officer professional development. The captains OES model will generate a net savings to the Army of \$57.8 million during the period fiscal year 2003 to fiscal year 2009.

The third OES transformation initiative, ILE, will provide all majors with the same 12-week Military Education Level 4 producing/Joint Professional Military Education 1 common core of operational instruction, and additional tailored education opportunities tied to the requirements of the officer's specific career field, branch, or functional area. Additional ILE fiscal year 2003 to fiscal year 2009 funding requirements are \$137.9 million.

Total additional funding requirements associated with transforming OES for the fiscal year 2003 to fiscal year 2009 timeframe are \$243.4 million.

Question. Will changes to the officer career courses, which rely heavily on distance learning, produce officers capable of meeting the

challenges of company command and battalion and brigade staff assignments?

Answer. Advanced Distributed Education (ADL) is the delivery of training to soldiers and units through the application of multiple means and technology. ADL allows students, leaders, and units centralized access to essential information and training. It represents a powerful capability in which the proper balance of course content and delivery technologies are provided when and where they will have the greatest impact on force readiness.

The captains OES, the CASC and the CABCC, provide assignment-oriented training for staff officers and company commanders, respectively. ADL is key to the captains OES model and will produce officers capable of meeting the challenges of company command and battalion and brigade staff assignments. In addition to ADL, captains OES capitalizes on new high-impact, multi-echelon, combined arms resident training methods.

ADL will be used to facilitate learning in combined arms tactics, techniques, and procedures and training doctrine, history, and tradition. This will be followed by an immersion experience in a hands-on, performance-oriented resident component taught by small group instructors under the supervision of the assistant commandants at the branch schools. This phase will be tailored to the officers' assigned duty positions.

CABCC will also include an on-site experiential combat training center (CTC) component led by a branch-qualified mentor. This tactical exercise without troops overlaid on a unit in a CTC rotation is a hands-on practicum designed to reinforce the commander's personal responsibility to develop, execute, and evaluate training.

Question. What impact will this shift in policy have on local commanders in the field who are already managing soldiers working longer hours and deployed more often since September 11?

Answer. The requirement to do more with less and the demands of the contemporary operational environment necessitated the OES transformation. The BOLC model does not increase the amount of time an officer is in the training base. The Army benefits from the BOLC by gaining a corps of mature, confident, and competent officers who have a common bond with their combined arms peers and are ready to lead small units upon arrival at their first assignment.

The current Intermediate Staff College concept affords a resident education for only 50 percent of the majors in a year group. The Army leadership decided that education should not be a promotion discriminator and that a smaller Army with increased demands must educate 100 percent of its majors. Intermediate Level Education will provide all majors with the same common core of operational instruction and additional tailored education opportunities tied to the requirements of the officer's specific career field, branch, or functional area.

OES transformation will impact the field by timely producing an officer with a warrior ethos, grounded in warfighting doctrine, and who has the technical, tactical, and leadership competencies and skills to be successful in the officer's branch, assigned duties, career field, and functional area.

Question. The Committee applauds the Army's efforts to provide Intermediate Level Education to all its officers, but can the force absorb a doubling of the number of majors in training at a time of significant operational stress? How will this be managed?

Answer. The Army recognized that pulling an entire year group or

cohort of majors will have an adverse impact on readiness and modified the concept. The ILE Intermediate Staff College concept will target approximately 1,950 officers from the Army competitive category each year. This target number is equivalent to a year group/cohort of majors. To alleviate the readiness impact on the field, 50 percent of the officers attending ILE will be in the grade of major and 50 percent will be drawn from the two senior year groups of branch-qualified captains. The Army Personnel Command will target officers for ILE attendance over a four-year period--the officer's last two years as a captain and first two years as a major.

Joint Logistics Warfighting Initiative

Question. The Army has been participating in a Department of Defense-wide demonstration of a logistics information management technology insertion program. The demonstration project, which is in its third year, is called the Joint Logistics Warfighting Initiative. What is your assessment of the Joint Logistics Warfighting Initiative?

Answer. The Joint Logistics Warfighting Initiative (JLWI) adds a capability to the legacy logistics systems at the operational level that the Army has not had in the past. This capability greatly widened the access to more timely supply and maintenance information through web-based tools. JLWI works well in base support and garrison operations and was used in Operation Enduring Freedom and in Iraq. However, without a more robust communication's architecture, JLWI and other web-based applications will have limited use during combat operations. The logistical functionality in JLWI is viewed as a capability that must be addressed when the Army transforms its logistics enterprise and converts to an enterprise resource planning based logistics solution.

Question. Does the Army plan to continue and expand use of the Joint Logistics Warfighting Initiative?

Answer. The Army will continue to use JLWI until the introduction of the enterprise resource planning software. There is no plan for the Army to expand JLWI beyond those units already programmed.

Fiscal Year 2004 Program Terminations

Question. The fiscal year 2004 Army budget request proposes terminating 24 programs and restructuring an additional 24 to free up the financial resources needed to support the Future Combat System and transformation to the Objective Force. Many of the terminated and restructured programs are so-called Legacy Force programs such as the M1A2 SEP, Bradley Fighting Vehicle A3 upgrade, and related programs. The Army estimates that \$2.3 billion becomes available in fiscal year 2004 because of these actions, and \$2.6 billion becomes available in fiscal year 2005.

Please highlight the major system terminations proposed in the fiscal year 2004 budget request.

Answer. The Army terminated the 24 programs listed on the following table in the fiscal year 2004-2009 Future Years Defense Plan.

FISCAL YEAR 2004-2009 FUTURE YEARS DEFENSE PLAN PROGRAM TERMINATIONS [In millions of dollars]

Program termination	Fiscal year 2004	Fiscal year 2004-2009

Crusader.....	475.1	5,738.9
Bradley A3.....	247.4	1,540.6
Abrams SEP.....	138.2	1,489.2
ATACMS BAT P3I.....	245.8	1,278.5
ATACMS Block II.....	86.4	688.7
MLRS 270A1 Conversion.....	110.9	667.5
Tactical Exploitation System.....	83.5	349.9
Wide Area Munitions.....	50.1	321.7
Raptor.....	29.1	289.4
25mm M919 Round.....	0.0	268.0
D7 Tractor.....	18.2	199.6
Stinger.....	33.0	195.7
Improved Target Acquisition System.....	28.7	172.4
Striker.....	8.7	171.5
Lightweight Video Recon System.....	14.4	167.0
120mm E4 Tank Round.....	0.0	128.2
Diagnostic Improvement System.....	15.4	72.0
Joint Tactical Terminal.....	9.3	25.9
Common Ground Station, P3I.....	-8.0	25.9
Floodlight Sets.....	3.9	25.1
Guardrail.....	14.2	23.0
M16A4 Rifle.....	9.4	20.9
Non-lethal Capabilities Set.....	5.9	11.8
Mark-19 Grenade Launcher.....	2.9	2.9

Total from Program Terminations.....	1,622.5	13,874.3

Question. What are the associated savings estimated for fiscal year 2004? Over the Future Years Defense Plan (FYDP)?

Answer. The Army reallocated the \$13.9 billion to its Transformation efforts over the FYDP period. For fiscal year 2004 \$1.6 billion was garnered from these terminations for Transformation.

Question. The budget request proposes terminating the M1A2 SEP and Bradley A3 programs. In light of these proposed terminations, do you have concerns about maintaining the industrial base needed to produce the Future Combat System (FCS) beginning in fiscal year 2008?

Answer. Army Transformation required cancellation of certain programs to fund a variety of transformational initiatives to achieve greater war fighting capability over the long term. We assessed the risks to the industrial base from these program cancellations and, where we judged necessary, we have taken steps to mitigate adverse impacts. We saw two major risks to the industrial base as a result of the decision to not modernize the Counterattack Corps. Both of these risks involved maintaining viable armor system production capabilities at two production facilities: the Lima Army Tank Plant at Lima, Ohio, and the United Defense combat vehicle production facility at York, Pennsylvania.

The first risk involves the General Dynamics' combat vehicle fabrication capability at the Lima Army Tank Plant. We judged that risk as unacceptable since Lima initially had an insufficient workload to remain viable as a production facility for the fabrication of the Marine Corps' Advanced Amphibious Assault Vehicle and the Army's FCS ground vehicles. To mitigate this risk, the Army has restructured some programs and now has sufficient work to sustain Lima in active production until these new programs are brought into production.

The second risk involved maintaining the United Defense's combat vehicle production facility in Pennsylvania. We recognize that this facility would also be a likely candidate to manufacture FCS ground vehicles in the future. We expect that the production facilities in Pennsylvania will remain viable and open through calendar year 2004 because of a continuation of their current fiscal year 2003 Bradley upgrade work. With this expectation and acceptance of risk, we did not program fiscal year 2004 funding for Bradley upgrades to protect that portion of the industrial base.

While we cannot guarantee additional work from support for fielded systems, foreign sales, and reprocessing vehicles from operations in Iraq, the Army is looking hard at workload projections after calendar year 2004 and identifying fiscal year 2005 options which might be needed to protect any United Defense combat vehicle fabrication capability determined essential for future production. Those options will consider United Defense work on development of manned FCS non-line of sight gun system, unmanned ground systems, foreign sales, and other new non-traditional business. All of the other industrial base risks from not funding the Counterattack Corps are judged acceptable.

We expect fiscal year 2003 funding and other work to keep essential skills active through the end of calendar year 2004, given that final vehicle deliveries are scheduled for June 2005. The program funding for Bradley system sustainment and technical support will transition in fiscal year 2006 from procurement to the Operation and Maintenance, Army account. We believe United Defense's engineering staff and the Army's own in-house staff will be able to sustain the vehicles made by United Defense.

The shortage of Bradley upgrade funding is manageable, but there are two key issues we must address. The first issue is how we will fund the required technical support to the fielded fleet. For fiscal year 2003, the Army will have to fund the technical support from operation and maintenance accounts. That will present a problem for us because we will be addressing not only peacetime requirements but operational requirements associated with the global war on terrorism and operations in Iraq. Obviously, we will finance the highest priority operational requirements first and defer those which are lower priority. A second issue is whether key suppliers will abandon the supplier network as we reduce requirements. This is a continuing problem, and we will do more tradeoff analysis to support decisions, for example, to either stockpile components or find alternate suppliers.

Question. The budget request proposes terminating production of the M919 depleted uranium cartridge for the Bradley Fighting Vehicle. Are the stocks of this round sufficient to meet requirements from now through the retirement of the Bradley?

Answer. The Army has not funded the M919 program due to other higher-priority requirements. However, the program has received funds through Congressional plus-ups in fiscal year 1999 through fiscal year 2003. Procurement will end with the fiscal year 2003 appropriation unless the Congress directs additional funds into the program. The Army will have produced a quantity of approximately 2.14 million cartridges through the end of fiscal year 2004. The Army acquisition objective stands at 5.3 million cartridges. There is a \$30 million critical unfunded requirement in the fiscal year 2004 budget. Stocks of the M919 cartridge, along with stocks of its less-capable predecessor cartridge, the M792, are sufficient to meet the needs of the Bradley Fighting Vehicle through its retirement. The Bradley family of armored combat vehicles will be an integral part of the Army force structure until

fiscal year 2045. During this timeframe, the M919 depleted uranium cartridge will provide soldiers with a lethal fighting capability that also enhances their survival on the battlefield.

Question. In fiscal year 2003, the Army proposed 18 systems terminations. Some are being reconsidered. For example, in fiscal year 2003 the Army terminated the Advanced Threat Infrared Countermeasures (ATIRCM) system, yet this program received \$75 million in the fiscal year 2004 budget request. Please explain the apparent inconsistency.

Answer. The ATIRCM program was not officially terminated in the fiscal year 2003 budget submission. With the fiscal year 2003 submission, the Army zeroed the ATIRCM procurement but left research, development, test, and evaluation funding in place to examine cost-reduction strategies within the program. The Army eliminated funding for procurement because of several factors including, poorly defined requirements, escalating costs, and to a lesser extent, because the Air Force and the Navy in 2000 withdrew from the Common Missile Warning System (CMWS). The Army transferred funding to the Special Operations Command for procurement of 97 ATIRCM/CMWS systems through fiscal year 2008.

In the fiscal year 2004 budget submission, the ATIRCM program contains funding for a new procurement strategy to develop an affordable counter-infrared program. The Army completed an aircraft survivability study to determine the optimal strategy to field survivability equipment to its conventional forces. The strategy proposes installing wiring harnesses for the modernized fleet (AH-64D Longbow, UH-60M Black Hawk, and CH-47F Improved Cargo Helicopter) and procuring countermeasure systems (ATIRCM, CMWS, improved countermeasure dispensers, and advanced infrared countermeasure munitions) in unit size sets. A unit size set is defined as a corps-, division-, or brigade-sized element. This revised procurement strategy offers an affordable solution to counter-infrared technology fielding and is funded in the fiscal year 2004 budget submission.

Question. Are there systems on the fiscal year 2004 list over which the Army has reservations?

Answer. Based on lessons learned from the war on terrorism, the Army reviewed ongoing operations and revalidated limited numbers for four systems, that had been terminated during the preparation of the fiscal year 2004 budget submission: Tactical Exploitation System (TES), M919 25mm ammunition, Stinger missile, and the Joint Tactical Terminal. As part of the fiscal year 2004 budget submission, the Army also generated a list of critical unfunded priorities. Three of the revalidated systems were placed on this list (TES, M919, and Stinger). In all cases, the unfunded priorities procure systems to meet an identified Army shortfall in the global war on terrorism.

Stryker Brigade Combat Capabilities

Question. The Army plans to establish six Stryker Brigade Combat Teams (SBCTs) to be supported by approximately 300 Stryker vehicles per team. From fiscal year 2000 through 2003, \$2.8 billion has been provided to purchase 1,100 vehicles. The fiscal year 2004 budget request includes \$955 million to purchase 301 additional vehicles. The Office of the Secretary of Defense has recently reconsidered the extent of the Stryker program. Vehicles to support the first four SBCTs have been fully funded through the fiscal year 2004 budget request. The fifth and sixth brigades have been put on hold pending an Army study due to the Office of the Secretary of Defense in July 2003. Section

8121 of the fiscal year 2003 Defense Appropriations Act requires the Department of Defense to program and budget for no less than six Stryker Brigades.

Please provide your assessment of the state of the Stryker program.

Answer. SBCTs provide an invaluable means of spearheading Army Transformation. The SBCT trains junior officers and noncommissioned officers--tomorrow's commanders and command sergeants major--in the tactics, techniques, and procedures that will inform employment of the Objective Force. The Army has resourced six SBCTs in the Future Years Defense Program to contribute to fulfilling the ``1-4-2-1'' defense construct and national security requirements. However, at this time, the Secretary of Defense has only authorized the procurement of the first four brigades. The Army will provide the Secretary of Defense with a plan for Stryker Brigades five and six.

Question. Has development of all variants of the Stryker been completed?

Answer. No. Development of the Mobile Gun System and the Nuclear, Biological, and Chemical Reconnaissance Vehicle continues. The initial low-rate production decision for both vehicles is scheduled for December 2003 with first unit deliveries scheduled for December 2004.

Question. What is the status of the Mobile Gun System (MGS) and Reconnaissance variants of the Stryker? Is the development of these variants complete?

Answer. Development of these variants continues with the initial low-rate production decision scheduled for December 2003 and first unit deliveries scheduled for December 2004. Reconnaissance Vehicle (RV) development is near completion, with 66 to be fielded by mid April 2003. Modifications to the RV are a result of lessons learned coming out of testing and are designed to ensure the vehicle meets its requirements and is safe for soldier use.

Question. What type of test ammunition is required to support completing the development of the MGS? Are the stocks of this ammunition sufficient to support development of the MGS?

Answer. Qualification testing of six types of 105mm ammunition cartridges supports MGS development. They include the M900 armor-piercing, fin-stabilized, discarding sabot; M456A2 high-explosive, anti-tank (HEAT); M393 high explosive; and training rounds for each. MGS development will use about 500 rounds of each during ammunition compatibility and safety qualification testing. The Army has sufficient, serviceable stocks of existing M900 sabot and M456 HEAT cartridges and their associated training cartridges for use with the MGS. The Army does, however, lack sufficient, serviceable stocks of high explosive and anti-personnel cartridges to support the MGS. These cartridges have passed their 20-year service life. In parallel and in conjunction with the MGS development, the Army is re-procuring a replacement for the M393A2 high explosive plastic and a matching training cartridge. In addition, the Army is developing a canister cartridge to meet the antipersonnel requirement.

Stryker/M113 Comparative Analysis

Question. Section 113(c) of the fiscal year 2001 Defense Authorization Act required the Army to conduct an evaluation of Medium Armored Vehicles. The results of the evaluation were submitted to the Congress in January of 2003. The evaluation compared the capabilities and characteristics of the Stryker Infantry Carrier Vehicle (ICV) and the M113A3 Armored Personnel Carrier (APC). The Army evaluation

concludes that the ICV provides advantages in the areas of force protection and survivability, support to the dismounted assault and close fight, and mobility. Given this conclusion, the Deputy Secretary of Defense approved obligation of funds appropriated for the Stryker. The fiscal year 2004 budget request includes \$955 million for an additional 301 vehicles.

What are the main differences in the survivability of the Stryker compared to the M113 (with and without armor kits)? Which vehicle is superior in this regard and why?

Answer. The primary difference in survivability is that the Stryker has protection against 14.5mm threats, while the M113A3 provides protection from 7.62 mm threats. The M113A3 needs several hours of preparation if 14.5mm armor protection is required. The Army does not own any M113A3 14.5mm armor sets. With add-on armor kits, both vehicles can provide protection against rocket-propelled grenades (RPG). The Army will have RPG armor for the Stryker, but does not have any RPG armor kits for its M113A3s. Stryker does not have the additional noise associated with ``track slap.'' With its lower acoustic signature, Stryker is less likely to be detected than a M113A3. Additionally, the automatic fire extinguishing system in the Stryker ICV can put out a fire after the vehicle is hit and provides a better chance of preserving the lives of the crew and enabling the vehicle, if still mobile, to continue the mission. The lack of an onboard automatic fire detection and extinguishing capability places the M113A3 crew at greater risk than the crew of the Stryker ICV. Overall, the Stryker is significantly more survivable than the M113A3 and, therefore, has a greater capability to safely deliver soldiers to the fight than the M113A3.

Question. What are the differences between these systems for ``limp home'' capability? Which vehicle is superior in this regard and why?

Answer. The Stryker has superior ``limp home'' capability--also referred to as residual mobility. Immobilized vehicles result in the loss of combat power--each vehicle and its squad is one-quarter of the platoon's combat power. It is likely that a vehicle will remain under enemy fire following a mine strike or other engagement that results in damage. If an M113A3 loses a track, it becomes immobilized and the squad must defend the vehicle while the crew repairs it--requiring at least an hour to prepare the vehicle to ``limp home.'' However, even after losing one or more wheels, the Stryker can immediately ``limp home'' and self-evacuate to a protected position to make repairs or continue the operation.

Question. What are the performance differences in supporting dismounted assault and close combat? Which vehicle is superior in this regard and why?

Answer. The Stryker is superior in its ability to support the infantry squad in combat. With its superior armor and the remote weapon station (RWS), the Stryker commander can operate the integrated RWS under protection and provide accurate direct fire against targets from a stationary position to support dismounted infantry operations. Conversely, a M113A3 commander must operate his pintle-mounted weapon from exposed position. Moreover, RWS day and night sight pictures can be shown on the squad leader's display, which is visible to the entire squad riding in the Stryker and allows the squad a 360 degree view of the surrounding area before dismounting. This increases the fidelity of the squad's situational awareness, enhancing their survivability and likelihood of mission success. To replicate this capability, the M113A3 gunner must scan the surrounding area with binoculars or a night vision

scope while exposed, and communicate his observations to the squad verbally.

Question. What are the performance differences between these vehicles in the areas of mobility (both on- and off-road), transportability, and recovery?

Answer. The Stryker has much greater fuel economy than the M113A3 over flat, level primary roads, and is self-deployable by highway. The M113A3 may require transportation support for longer intra-theater moves and movements to and from ports of debarkation/embarkation. The comparison evaluation results reflected that the Stryker is able to deliver an infantry squad to the fight faster when employed in the projected operational terrain mix. The Stryker's superior road movement capability enables the entire Stryker Brigade Combat Team to self deploy in parallel with other means of intra-theater transport, such as C-130 aircraft and theater support vessels, or when other transport means are not advantageous or available, to concentrate combat power or fight dispersed as required.

The Stryker and the M113A3 are air transportable in C-130, C-5, and C-17 aircraft. One vehicle, a Stryker or M113A3, can be transported in a C-130. A C-17 can transport three vehicles of either type. The M113A3 is smaller and lighter, enabling strategic air deployments by C-5 to carry two additional vehicles. The M113A3 has better capability in soft soil, but when it gets stuck, it requires extraction by external recovery assets. The Stryker's self-recovery and likevehicle-recovery capabilities reduce its disadvantages in terrain favorable to the M113A3. With pivot steering, the M113A3 does have a better turning radius than the Stryker.

Question. Please summarize the Army's experience with operational vignettes at Fort Lewis, the National Training Center, and elsewhere comparing the performance of these vehicles.

Answer. The Army is pleased with the Stryker's performance at Fort Lewis and the National Training Center. During the comparison evaluation operational vignettes, both vehicles adequately supported platoon missions, but the Stryker provided better overall operational capability. Analysis of the comparison evaluation technical data identified differences between the vehicles and the results of operational vignettes complemented those findings. Soldiers participating in these vignettes overwhelmingly favored the Stryker over the M113A3. When capabilities of both vehicles are compared, considering the variables of mission, enemy, terrain, troops, and time available, the Stryker provides a greater capability across a wider range of possible operating conditions.

During Millennium Challenge 2002, the Stryker proved itself quite mobile in the mountainous terrain of the National Training Center. The opposing forces remarked that the Stryker surmounted terrain that no other vehicle, wheeled or tracked, had been able to climb. While both vehicles provide the basic capabilities to conduct required tasks and subtasks, mission success is impacted by how soldiers employ the vehicle. The Stryker provides significant advantages in the areas of force protection and survivability, support to the dismounted assault and close fight, and mobility.

Future Combat Systems

Question. The Army describes the Future Combat System as its number one priority supporting transformation to the Objective Force. The fiscal year 2004 budget request includes \$1.7 billion in Army research

and development funding. This includes FCS System Design and Development (SDD) funding, as well as funding for Netfires and the Objective Force Indirect Fire system. The later two elements of FCS were included in the Crusader budget amendment proposed by the Administration for fiscal year 2003.

What is the current status of the Future Combat System? Please outline for the Committee the upcoming steps in the development process for FCS.

Answer. The FCS program is in the latter stages of the concept and technology development phase of the DoD acquisition model. The Army and DARPA have identified the concepts and technologies necessary to develop, integrate, field, and sustain FCS Increment I. The Army will recommend to DoD that the program transition from concept and technology development to system development and demonstration at the FCS Milestone B Defense Acquisition Board in May 2003. The next major milestone is at the initial production decision in 2008 leading to the Army's initial operating capability at the end of the decade.

Question. The Committee understands that the Army has recently released 24 requests for proposal (RFPs) for various technologies that will comprise FCS. Please explain the primary areas of emphasis of these RFPs.

Answer. The 23 sub-contract RFPs and one sub-contract released by the Army are primarily focused on unmanned systems; supportability; training; and command, control, communications, and computers, and intelligence surveillance, and reconnaissance (C4ISR). Fully 12 of the 23 RFPs emphasize C4ISR, because the Army recognizes that network connectivity and data fusion are the most critical aspect of the FCS system of systems concept.

A unique aspect of FCS versus other individual program developments is that a Lead Systems Integrator is horizontally integrating all of the RFPs. This horizontal integration is occurring across all manned, unmanned, unattended sensors, and munitions within the FCS. In the past, larger emphasis was placed on vertical integration rather than horizontal integration. Horizontal integration is an attempt to improve connectivity between systems and capitalize on potential force effectiveness increases from the synergistic application of combat power across a force.

Question. The Committee is aware that the Milestone B decision for FCS is approaching in May of 2003. Explain what this decision represents for the development of the FCS.

Answer. The Milestone B decision represents the Office of the Secretary of Defense's approval for the FCS program to transition from concept and technology development phase to the system development and demonstration phase. A decision to proceed to the systems development and demonstration phase allows the Army, DARPA, and the Lead Systems Integrator to start the systems integration and demonstration activities necessary to enter production. More importantly, the FCS Milestone B decision represents a major step in the Army's desire to transform and achieve Objective Force capability before the end of the decade.

Question. The Committee is aware of discussions within the Army indicating that the FCS program is between \$40 and \$50 million short of funds to support the program through the Milestone B decision. Why? What work must be performed or accelerated in order to keep the program on schedule?

Answer. The Army and DARPA team need to reprogram \$30 million dollars from within the Army to support FCS modeling and simulation

(M&S) efforts. The Army believes it must build and sustain a state-of-the-art M&S capability to accomplish the engineering effort required for the FCS program. This M&S capability will increase the efficiency and quality of the design effort, allow the design team to prototype subcomponents in a three-dimensional synthetic environment, and test performance on a synthetic battlefield from different locations in a collaborative fashion. The Army sees M&S as the only way to design the FCS system of systems and make it work efficiently. Specifically, these resources will provide government licenses and services required to deliver, maintain, and improve the services of the FCS advanced collaborative environment. Included is the software and hardware backbone to integrate government-owned data and applications.

Question. The Army has chosen an acquisition strategy that relies on a Lead Systems Integrator (LSI) to coordinate the early stages of the program. Why has the Army chosen this strategy? What is the primary contribution of the LSI to development of the FCS?

Answer. The Army and DARPA chose an LSI to help manage and integrate FCS because of the magnitude and complexity of the task. The Army studied the acquisition approach of other large and complex programs, such as the National Missile Defense and International Space Station programs, to determine the best method of managing and horizontally integrating a large engineering effort. The Army concluded that the LSI concept provided the most efficient and lowest risk approach to integrate the system of systems concepts required by FCS. The Army believes that with a LSI, that it can integrate architectures and platforms, and manage the interface requirements more efficiently and effectively. Additionally, the Army is transforming away from functional mission areas and related platform development, to a more horizontally integrated process. To break the functional mission area mold, the Army chose to competitively select an LSI to provide horizontal systems engineering development and management across the FCS system of systems.

Question. This program is the joint responsibility of the Army and DARPA. Please explain the respective roles and funding responsibilities for the Army and DARPA in development of the FCS.

Answer. DARPA and the Army combined their talents to define concepts, identify technologies, and begin development of FCS using a memorandum of agreement (MOA). The Army and DARPA have a 55/45 cost share agreement, respectively, for the concept and technology development phase of the FCS program effort. This MOA extends through 2005 and both parties are currently updating the MOA to define the FCS Increment II concept and technology demonstration phase activities. Generally, DARPA has focused on its forte of thinking outside of the box and developing novel and higher risk technologies. The Army has focused on leveraging and maturing DARPA work and technologies to the degree that they can be integrated into weapons systems.

Non Line of Sight Cannon

Question. In fiscal year 2003, the Administration proposed a budget amendment to terminate the Crusader artillery system. This proposal recommended \$195.5 million to continue developing an indirect fire support element for the Future Combat System (FCS). To this, the Congress added \$173 million, for a total of \$368.5 million. The funding was intended to develop a firing platform as well as weapon system integration. This funding was provided specifically to the program management staff that had been developing Crusader.

Mr. Secretary, the Congress provided nearly \$370 million to continue developing an indirect fire weapon for the Army including the development of a more deployable chassis. What has the Army accomplished to date with this funding?

Answer. To date, the Army/United Defense/General Dynamics team has entered the preliminary design phase for the non-line of sight cannon (NLOS-C). The NLOS-C is a manned ground vehicle that is deployable on a C-130 aircraft. The NLOS-C embodies the major design drivers that will effect an overall design for all of the other manned ground vehicle variants (mortar, direct fire cannon, etc.) in the FCS. The team has made significant up-front system engineering effort to generate and allocate the performance and functional requirements to support component design activities. The team has performed the majority of the design, analysis, and development efforts necessary to conduct detailed individual subsystem and component design within the vehicle. The team has accomplished preliminary design analyses, design option assessments, and architecture development for the electronics, software, propulsion, suspension, crew station, ammunition handling, armament, cooling, and survivability.

The engineering, architecture analysis, and design work apply not only to the NLOS-C, but to all of the other FCS manned ground vehicles. In addition, a best technical approach for the NLOS-C was presented to and accepted unanimously by the program manager, user, and Lead System Integrator. Overall, the funding has enabled the Army to substantially reduce the schedule and cost risk to the FCS manned ground vehicles and has provided a head start for the FCS system design and development phase. Finally, the FCS NLOS-C demonstrator is scheduled to begin testing this summer.

Question. An area of concern in the Committee's fiscal year 2003 deliberations was integration of a large artillery piece onto a relatively light chassis. What progress has been made to solve this problem?

Answer. The physical and dynamic forces exerted on a firing platform have been analyzed using high-fidelity computer modeling techniques. These computer models have proven to be extremely accurate in the past for measuring force loads and vehicle properties. Various suspension and propulsion options were also analyzed to determine the effect of the force transfers. Results have indicated that the addition of stabilizers to the rear of the vehicle provide sufficient support to reduce the vehicle settling time and forces experienced by the crew. Timeline analyses have also been done and confirm that this solution will support the user's aggressive response requirements. A system demonstrator is being manufactured to confirm these analyses and will undergo live testing at Yuma Proving Ground this summer.

Question. The Committee understands that the Line of Sight variant of the Future Combat System (FCS) and the NLOS cannon will share a common chassis. What engineering and design challenges confront the Army in developing a common chassis for these systems?

Answer. The current development approach for all FCS manned ground vehicles is to share a common chassis design with common subsystems where practical. The various mission profiles and demands of the manned ground vehicle suite pose a design challenge to package required mission equipment within the power, weight, and volume constraints. Computer aided design and engineering models have confirmed the feasibility of this solution approach. By maximizing basic component commonality, the Army expects to realize significant savings in development, production, training, maintenance, and logistics costs.

The challenge will be to maximize commonality without compromising the overall vehicle performance capabilities throughout the vehicle variants. The driving philosophy is to maintain commonality where it saves money and provides an operational benefit to the user.

Question. Congress provided NLOS funding to the Army program management staff responsible for development of artillery systems. In fiscal year 2004, the Army budget request proposes combining this into the funding line for the FCS. Why?

Answer. Realigning the FY04 program will more accurately reflect the true characterization of the program. FCS is a system of systems linked by a battle command network, rather than a collection of various independent platforms. Furthermore, the realigned FY04 program also more accurately reflects the execution of the work being accomplished. Since the Army is developing all variants through one system of systems Lead Systems Integrator, the Army expects to achieve improved efficiencies in the FCS program. The system of systems contractor will maximize commonality and also ensure supportability is engineered across the system of systems.

Question. What changes in program management does the Army propose as a result of realigning, funding for NLOS development?

Answer. Realigning the program funding for NLOS has not resulted in any substantial changes to the program management of the NLOS-C program. The Crusader management staff has transitioned to form the NLOS-C management staff to support the initial FCS program in general.

Tactical Unmanned Aerial Vehicle Shadow 200

Question. The Army's Tactical UAV recently underwent its Operational Test and Evaluation.

Please give a summary of the operational test and evaluation report--was the Shadow 200, the Army's tactical UAV, found to be operationally suitable and operationally effective?

Answer. The TUAV Shadow 200 system is deployed with the 4th Infantry Division and with the first and second Stryker Brigade Combat Teams. These systems have the full confidence of the senior commanders of those combat units. The TUAV Shadow system was one of the DoD's most successful acquisition programs achieving a Milestone II to III decision in less than three years to include a successful initial operational test and evaluation (IOT&E). One of the key elements in this success was an Army approved acquisition based on a blocking strategy to achieve early success with anticipated block upgrades.

The DoD Joint Interoperability Test Center remarked that the TUAV Shadow was the ``model for future C4I development.'' As tested by the Army's Test and Evaluation Command in the Block I configuration, and the rapid acquisition strategy, the TUAV Shadow is effective, suitable, and survivable. Finally, the Army has deemed the Shadow system affordable, and full rate production go ahead was approved in September 2002 with the full rate production contract being awarded in December 2002.

Question. What is the Army plan for continuing the TUAV program?

Answer. The Army acquisition objective is 83 systems while the Army procurement objective is 41 systems based on the fiscal year 2004-2009 Program Objective Memorandum. Thirteen systems had been procured under low rate initial production contracts; the full rate contract award in December 2002 was for nine systems with procurement for the remaining 19 systems to take place from 2004 to 2008. Systems will eventually be fielded to each of the Army's divisions, Stryker Brigades, and the

training center.

The Future Combat Systems Lead Systems Integrator released requests for proposal for four classes of UAVs in February 2003 that would include at least two UAV capabilities possibly met by the TUAV Shadow 200 or a growth version of that same system. In addition, the Army continues to work towards further improvement of the TUAV Shadow 200 with a series of targeted upgrades including improvement of target location error, incorporation of a tactical common data link, and conversion to a heavy fuel (JP-8) engine. The TUAV Shadow will deploy in the Persian Gulf region as part of the 4th Infantry Division.

Question. Has the TUAV program presented in the fiscal year 2003 budget been restructured in the fiscal year 2004 budget request?

Answer. The TUAV budget has not been restructured in the fiscal year 2004 budget request.

Question. How many Shadow 200 systems does the Army intend to acquire in fiscal year 2003 and 2004?

Answer. The Army will procure nine TUAV Shadow systems in fiscal year 2003 and eight systems in 2004. The maximum production capacity is 12 systems per year.

Question. In what ways does the TUAV not satisfy the Army's requirement for a longer-range, more robust UAV capability? What program are you pursuing to meet this requirement?

Answer. While the Shadow 200 TUAV is an outstanding asset--easily deployed, and focused on the needs of the tactical maneuver commander, it has limitations. The TUAV has a small payload capacity, cannot carry multiple payloads, and has a limited range. These limitations are due to its smaller size. In accordance with Objective Force guidelines, the Army is pursuing an extended range/multi-purpose (ER/MP) UAV that is light, mobile, and flexible to meet projected division/corps requirements beyond the 50-kilometer range the Shadow 200 TUAV operates in.

At the same time, the U.S. Air Force Predator and Global Hawk UAVs, while outstanding platforms, cannot meet the Army ER/MP UAV requirements due to limited assets, requirement for extensive logistical support, and differing Army missions. Additionally, neither Predator nor Global Hawk is responsive enough to provide support at multiple echelons at once. Given the nature of the anticipated roles of division and corps under Army Transformation, the requirement for an ER/MP UAV is critical.

The operational requirements document for this capability is undergoing final adjustments in preparation for a May Army requirements oversight council, and we hope to have this important capability to the Army beginning in fiscal year 2006/2007. We do not intend to develop a new ER/MP UAV capability; rather, we will conduct a fly-off in fiscal year 2004 among current UAV platforms to determine the air vehicle the Army will select to meet its extended range UAV requirements. Finally, the ER/MP UAV must be compatible with the Shadow 200 UAV ground control equipment to ensure commonality of equipment, reduced training requirements, and overall cost savings of not having to maintain two separate ground control systems.

Aerial Common Sensor

Question. With the cancellation of the Joint SIGINT Avionics Family (JSAF) program, the Army was required to restructure its Aerial Common Sensor program. Please summarize the new acquisition strategy for your Aerial Common Sensor (ACS) program.

Answer. Due to the cancellation of the JSAP program, the Army rated the communications intelligence (COMINT) sub-system for ACS as a high-risk area. Therefore, the milestone decision authority approved a change to the acquisition strategy allowing two contractor teams to proceed through the technology development phase to reduce risk. The exit criteria for the phase were adjusted to include the demonstration of a prototype COMINT sub-system in a system integration laboratory environment. The technology development phase began in April 2002 and will conclude with contractor technical demonstrations in early July 2003.

Upon completion of the technology development phase, the Army will select a single contractor team in an open competition to complete the system architecture, develop, test and produce the system, and develop the sustainment plan for the life of the system. The first ACS unit will be equipped in fiscal year 2009.

Question. What are the major milestones in the decision-making process and what are the timeframes for these milestones?

Answer. The next program milestone is the Milestone B decision planned for September 2003. The Milestone B decision will formally initiate the program and authorize entrance into the system development and demonstration phase. The system development and demonstration phase will begin with the award of the system development and demonstration contract in January 2004 and conclude in the fourth quarter of fiscal year 2007.

Key events during this phase are the developmental tests of the ACS prototype. Developmental test #1 is scheduled in fiscal year 2006 and developmental test #2 is scheduled for fiscal year 2007. Developmental test #2 and a follow-on limited user test will provide the necessary system evaluation to proceed to Milestone C in the fourth quarter of fiscal year 2007. The Milestone C decision will authorize low-rate initial production of the ACS system. Initial operational test and evaluation will occur in fiscal year 2009 and supports the full rate production decision, also in fiscal year 2009.

UH-60 Black Hawk Fielding Plan

Question. Among the systems proposed for restructuring in the fiscal year 2004 budget request is the UH-60 Black Hawk. The restructuring is tied to the Army Aviation Modernization Plan (AAMP) which proposed a reduction to the total number Black Hawks the Army will field. The fiscal year 2004 budget request is consistent with an overall decline in the number of Black Hawks as the number of aircraft requested drops from 12 to 10.

How many UH-60 Black Hawk aircraft are requested in the fiscal year 2004 budget? How does this compare to the requested and enacted levels of the last two years?

Answer. The Army has requested 10 UH-60 aircraft in the fiscal year 2004 budget. The Army requested 12 UH-60s each in fiscal years 2002 and 2003. Congress provided seven additional UH-60s in fiscal year 2003 and 10 additional UH-60s in fiscal year 2002.

Question. Please explain the modified fielding plan for the UH-60 Black Hawk as a result of the Army Aviation Modernization Plan (AAMP).

Answer. The 2003 AAMP continues the Army's efforts to retire all legacy aircraft quickly, structure the Active and Reserve Components with like units, and field all these units with modernized aircraft. The plan also eliminated or reduced the size of a number of units to align the aviation force structure with current and future warfight

requirements. The RAMP retires all operational UH-1s by the end of fiscal year 2004, reduces the number of UH-60s in the Active Component, cascades aircraft to the Army National Guard and the aviation training base, and continues Black Hawk procurement to reach the Army's total UH-60 requirement of 1,680 aircraft.

Question. Does the AAMP propose a lower number of aircraft to support Army requirements?

Answer. The Army has reduced its total requirement for UH-60s from 1,956 to 1,680.

Question. How will the number of aircraft proposed in the AAMP change for the Active Army versus the Guard and Reserve?

Answer. The Army will reduce the total number of UH-60s in Active Component warfight units by 28 percent. The Army National Guard UH-60 warfight requirement will be reduced by five percent. However, the number of UH-60s on hand in the Army National Guard will grow by 32 percent from 2002 to 2007. The number of UH-60s in the Army Reserve does not change.

Question. The Committee understands the result of the AAMP, together with retirement of older aircraft such as the UH-1 and OH-58, is that some Army aviation units will be at between 50-70 percent of fill. Is this correct? If so, for how long?

Answer. At the end of 2002, the Army had fielded approximately 92 percent of its total Black Hawk requirement (1,550 of 1,680 required), and the Army National Guard had 85 percent of its requirement on hand (587 of 687 required). As units transition to their new structure in 2003 and 2004, there will be approximately 10 to 15 companies in the National Guard that will be filled at the 50 to 70 percent level for 12 to 18 months. By the end of 2004, the National Guard should have approximately 610 of their 687 UH-60s on hand. This provides enough aircraft to fill all of the National Guard high-priority units at 90 to 100 percent and the remaining units at no less than 80 percent.

Question. Does the reduction in the total number of aircraft proposed in the AAMP give rise to the need for a more robust recapitalization plan for the Black Hawks that are currently fielded? If so, how is that supported in the fiscal year 2004 budget request?

Answer. The Army is currently funding two UH-60 recapitalization programs. The UH-60A to A program is funded to recapitalize 20 UH-60As in fiscal years 2004 through 2013. The UH-60M recapitalization/upgrade program is funded for continued development and certification in 2004 and initial production beginning in 2005.

CH-47 Chinook Helicopter

Question. The Army plans to rebuild the aging CH-47 Chinook heavy-lift helicopter. The program is in the second year of Low-Rate Initial Production (LRIP). \$327.1 million is included in the fiscal year 2004 budget for 16 aircraft. The current Army program will produce 340 aircraft compared to a requirement of 513. Of the total planned production, 53 aircraft will support Special Operations requirements. In the fiscal year 2003 bill, the Congress added \$39 million to this program provided that the Army restructures the CH-47 program to upgrade the entire fleet (465 aircraft) at a rate of not less than 36 aircraft per year. The current Army plan, as reflected in fiscal year 2004 budget request, does not implement this direction.

Please explain the significance of the CH-47/MH-47E to the Army and the Special Operations Command in general, and to supporting the Global War on Terrorism in particular.

Answer. The Army Special Operations Forces (SOF) MH-47E Chinook was absolutely critical in providing the vertical envelopment capability infiltrating Special Forces teams, Army Rangers, and Navy SOF into Afghanistan during the early stages of Operation Enduring Freedom. The aircraft was also deployed to the Philippines supporting Operation Enduring Freedom-Philippines. The aircraft's unique SOF peculiar one-of-a-kind systems include its terrain following/terrain avoidance radar, aerial refueling capability, and over-the-horizon satellite communications. This equipment enabled SOF teams to be flown over desert and rugged mountainous terrain in excess of 20,000 feet, flying at times in zero visibility due to brown out and atmospheric conditions. During Operation Enduring Freedom, the MH-47Es aircraft mission equipment enabled combat aircrews of the 160th Special Operations Aviation Regiment to fly combat missions in excess of 12 to 14 hours using night vision goggles. During Operation Enduring Freedom, the MH-47E conducted the longest rotary wing infiltration of Special Forces in Army history. This unique MH-47E capability saved the SOF ground force commander several weeks of critical time during Operation Enduring Freedom.

The MH-47E also performed other highly successful missions that included SOF exfiltration, air assault, resupply, forward air refueling point operations, sling load, selected combat search and rescue, and medical evacuation operations for SOF deep within the battlefield. The MH-47E proved to be the strongest workhorse on the battlefield supporting Army Special Operations Forces and other U.S. forces into Afghanistan and Iraq. Within the Army and the Department of Defense, it is the only aircraft capable of flying the extremely long missions.

Due to limited number of MH-47Es, the CH-47 provided a tremendous complementary capability in support of Special Operations Forces where the CH-47s were determined to be suitable and feasible. Like the MH-47, the conventional CH-47D Chinook also demonstrated its vertical lift capability in Afghanistan. The CH-47D provided air assault, resupply, sling load, and medical evacuation operations for conventional forces; however, the CH-47 does not offer the mission range or possess the same optic systems as the MH-47E. The CH-47D was able to safely operate in the environment because of the recent significant engine and communications equipment upgrades made to the aircraft.

Question. How many of each type of these aircraft are currently deployed in support of the war on terrorism, and in support of operations in Iraq?

Answer. The Army has 120 total CH-47D and MH-47D/E aircraft deployed in support of these operations.

Question. What is the mission capable rate of the fleet of aircraft that is deployed?

Answer. The CH-47D mission capable rate is 71 percent and the MH-47 mission capable rate is 84 percent.

Question. What is the status of the CH-47/MH-47 rebuild program?

Answer. The CH-47/MH-47 rebuild program is on track, but is in the process of restructuring to accommodate the increased priority of the Special Operations aircraft. The low-rate initial production contract was signed on schedule in December 2002. The first aircraft was subsequently inducted into the production line in January 2003. Two additional aircraft have since been inducted into the program.

The President's Budget placed increased emphasis on the early production of the MH-47G. Due to the pressing requirements of the global war on terrorism, the production of the MH-47G was accelerated. Most of the first three production lots will be dedicated to the

production of the MH-47G. This will introduce some inefficiency in the resultant CH-47F program that will result in an increase in unit cost. The current estimate is that the cost increase will be less than 10 percent. The Army Cost and Economic Analysis Center is currently developing a revised cost estimate.

Question. What is the quantity of aircraft proposed in the fiscal year 2004 budget request?

Answer. Sixteen CH-47Ds are programmed for remanufacture to the MH-47G configuration.

Question. The fiscal year 2003 bill provided \$39 million above the budget request, and directed the Army to structure this program to produce not less than 36 aircraft per year, and a total of 465 aircraft over the life of the program. What steps has the Army taken in the fiscal year 2004 budget request, and over the FYDP, to structure such a program?

Answer. None. Currently on OSD withhold, the \$39 million would have provided long lead items for one production lot. The estimated cost to complete this program is an additional \$2 billion. Due to competing priorities and limited resources, the Army cannot afford an increase of this magnitude. Additionally, the operational impact of a 36 aircraft per year in the remanufacturing program is considered too high. With the planned increase in MH-47 inventory from the current Army CH-47D inventory, the Army would have to stand down one CH-47 unit or resource below authorization 10 CH-47 units through fiscal year 2018 to execute a 36 aircraft per year program.

Question. How has the shift in initial lot production from the CH-47F to the MH-47G model impacted the CH-47F program?

Answer. Adjusting the production schedule to comply with the Program Decision Memorandum will add an estimated \$177 million to the CH-47F, of which \$77 million will be realized in fiscal year 2005-2009, and slip the Army's CH-47F first unit equipped 21 months into fiscal year 2007.

RAH-66 Comanche Helicopter

Question. In October 2002, the Defense Acquisition Board (DAB) recommended that the Army proceed with the Comanche program and approved production of 650 aircraft at a rate of not to exceed 60 per year. Of the total, the DAB approved production of 73 low-rate initial production (LRIP) aircraft. The quantity will be reassessed at the Future Combat System (FCS) Milestone B decision in May 2003. The fiscal year 2004 budget request includes \$1.1 billion for Comanche. Test aircraft 3 will make its first flight in May 2005.

In October 2002, the DAB recommended that the Army produce 650 RAH-66 Comanche helicopters. What is the basis for the quantity recommended by the DAB?

Answer. Six-hundred fifty Comanches fields a 12-helicopter squadron in each Objective Force unit of action and a similar unit in the reconnaissance, surveillance target acquisition (RSTA) squadron of the unit of employment. There are projected to be 30 unit of action and 10 RSTA units for a total of 480 Comanche helicopters. Additionally, Special Operations will field 16 aircraft, and 154 are required for the training base, operational readiness float, testing, and other missions.

Question. Please compare the DAB figure to the total Army requirement. What is the basis for the total Army requirement? Does the Army total assume that Comanche will serve only as an armed

reconnaissance aircraft or as an attack aircraft as well?

Answer. The Comanche is a multi-role armed reconnaissance and attack helicopter integral to the Army's future force. It addresses Army battlefield reconnaissance requirements as a lethal, low-observable, reconnaissance sensor, communications, and weapons platform and will replace the Army's vintage combat aircraft. Comanche is designated as the initial system for the Army's Transformation within its future Objective Force and is the combat aviation element within the Future Combat System. The total Army requirement for Comanche is 819 in both units of action and units of employment. This includes 652 in Active Component reconnaissance, attack, cavalry, and special operating forces units; 167 for flight school, operational readiness float; testing; and other missions. The DAB permitted Army procurement to the units of action and the reconnaissance units in the units of employment. This equates to 650 Comanches: 496 in Active component units and 154 for schools, operational readiness float, testing, and other missions.

Question. The DAB specifies that the Comanche should be produced to meet Block III capabilities. Please describe Block III capabilities. Do aircraft of this specification differ from the Army's plan prior to the DAB?

Answer. Comanche Block III will begin fielding around 2013. Block III adds full sensor packages including sensor fusion and also the external fuel armaments system that adds the capability of extended ranges and external weapons. Block III focuses squarely on the armed reconnaissance version because this represents our greatest aviation battlefield deficiency. Basically, the requirements did not change during restructure except for the addition of tactical control data link that permits control of unmanned aerial vehicles.

Question. The DAB requires use of the Cost Analysis Improvement Group (CAIG) cost estimates for program and budget formulation. Please explain how these estimates differ from the Army's estimates.

Answer. The difference between the Army's position and OSD CAIG's in research, development, testing, and evaluation was only one percent (two percent when excluding sunk costs), and the procurement difference was nine percent.

Question. Following the DAB recommendation, the Army filed a Nunn-McCurdy waiver based on acquisition unit cost growth. Why? Is the waiver a result of using CAIG cost estimates or for other reasons?

Answer. The Army cost position did include cost growth resulting in a program acquisition unit cost variance of 14.4 percent and acquisition procurement unit cost variance of 8.1 percent. The Army estimates did not reflect a Nunn-McCurdy breach. However, the incorporation of the OSD CAIG estimate, which added significant increases to the procurement estimate, resulted in a program acquisition unit cost breach of 23.2 percent and an acquisition procurement unit cost breach of 18.3 percent. These amounts require Nunn-McCurdy breach notification to Congress.

Question. The Comanche program has again been restructured in the wake of the DAB recommendation. Why?

Answer. The DAB recommendation represents the agreed upon and approved restructured Comanche program. To bring all development processes into compliance with the new program structure, we are revising documents such as the test and evaluation master plan and conducting a critical design review.

Question. The Comanche has experienced numerous technical issues during its development including: the weight of the aircraft, the aircraft's vertical rate of climb (VROC), and the complexity of the software needed to operate the aircraft. In December of 2002, the T-802 engine for the Comanche passed a critical design review. This engine provides enough power to meet the aircraft's VROC requirements. In January 2003, due to commercial obsolescence, the Army had to reprogram funds to ensure adequate stocks of computer chips for the aircraft's mission computer, and for other electrical components.

The Committee is aware that the Army has adjusted requirements to ensure that Comanche's weight growth will not prevent production aircraft from meeting vertical rate of climb requirements. Please explain.

Answer. The Army did not change the objective requirements for Comanche. However, the Army did adjust the timeframe for meeting the objective requirements. This adjustment resulted from restructuring the program to adopt an evolutionary acquisition strategy. Evolutionary acquisition is the desired method for achieving a usable weapon system in the near term rather than having a lengthy development trying to achieve final objective requirement at first fielding. A threshold VROC requirement for the Block I and II configured aircraft is lower than the objective in Block III. This allows the Army to quicken the initial fielding and, using emerging technology, achieve the final objective VROC.

Question. Does the adjustment of requirements mean that the Army has lowered its performance requirements for the Comanche?

Answer. No. The objective requirements for Comanche remain the same as before the restructure, but the adjusted strategy allows the program to achieve those objective requirements in an evolutionary process.

Question. Recent Army reports indicate that the T-802 engine to be used in Comanche will provide acceptable weight growth ``margin'' as the Comanche program progresses. How much margin does this engine provide in light of the aircraft's current weight?

Answer. We are certain that there is substantial growth margin in the T-802 engine, but we do not currently know how much. From recommendations made in 2002 by the independent review panel, the project manager has implemented a study of the engine to determine the amount of power that can be achieved by the engine and what the effect will be on the engines durability and dependability at various shaft horsepower outputs. Once the data from the study is obtained, the developers will be able to adjust the engine's power output in concert with required range, weight limits, and operational availability to optimize the overall system performance.

Question. What if any operations and support risks are associated with the T-802 engine which runs ``hotter'' in order to generate more horsepower?

Answer. The risk with running the engine at a higher horsepower output is associated with increased wear and stress on engine component parts. Currently, the Comanche's forecasted engine runtime time between overhauls is very high.

We are certain that the engine can be operated at a higher power output while still maintaining an acceptable time-between-overhauls value. However, we will not know the specific limits of engine power output until the study is completed.

Question. Does the weight of an aircraft typically grow as it progresses through development and production, and if so, at what rate?

Does the Comanche program's experience match the Army's more general experience? Explain.

Answer. Yes, historically, attack type helicopter weight grows an average of 10 percent during development. The Comanche helicopter weight has grown 17.5 percent. Comanche's weight growth is not surprising considering the new requirements that it has had to satisfy as compared to legacy aircraft, such as radar cross section reduction, advanced infrared suppression, NBC protection, internal weapons bay, improved agility, sideward and rearward flight capability, and improved reliability and maintainability. Still, we believe that during the evolutionary development, we will be successful in keeping the aircraft within the needed maximum weight range.

Question. The Army has recently reprogrammed funds to provide for costs related to the mission computer modules and electrical components. Please explain why this reprogramming of funds was necessary.

Answer. In traditional acquisition processes of the past, we usually only had to deal with advanced procurement of long-lead items for production about a year to 18 months before a production decision. However, in today's rapid technological growth environment, commercial electronic components are changing at such a rapid pace that a specific design is only up to date for one or two years, or less. These technology advances are accompanied by proprietary form-factor changes also. For many weapons systems developments, the designer finds that the components of his system, while still fully capable, become unavailable in the market place. If sufficient numbers of the no longer commercially produced parts are not acquired before they are unavailable, the designer will be forced into a premature and unplanned redesign effort. The Army requested a reprogramming of research, development, testing and evaluation (RDTE) funds to procurement funds in order to stockpile sufficient obsolete electronic parts to carry the program through low-rate initial production.

Question. Are measures included in the fiscal year 2004 budget to further hedge against computer and electrical component obsolescence for Comanche?

Answer. Yes, now that we have established a procurement funding line, the Army will reprogram some of the Comanche RDTE in fiscal year 2004 to continue to stabilize the current design with the existing components. At the end of the low-rate initial production, Boeing-Sikorsky will update the electronic design to the newest technologies of that time just before full-rate production.

AH-64 Apache Longbow Service Life Extension

Question. The Acquisition Decision Memorandum (ADM) for the Comanche indicated that the AH-64 Apache will continue to meet the Army's heavy attack requirements. Accordingly, the ADM directed the Army to submit a plan to OSD by November 2002 to extend the service life of the Apache.

Please describe the plan for Apache Service Life Extension that the Army submitted pursuant to the Comanche Acquisition Decision Memorandum.

Answer. The Army's plan for the Apache Longbow will lower operations and support costs while taking advantage of technologies to ensure Apache Longbow relevance and interoperability with the Objective Force. The operations and support improvements include a new composite rotor blade, a common engine in all Longbow aircraft, airframe life

extension, and other life extension improvements.

The technology improvements address specific combatant commander warfighting needs and fix platform deficiencies pertaining to Objective Force interoperability affecting the 284 Block I aircraft. Improvements include a littoral capability, upgrading the digital capability of all Block I aircraft to meet the requirements of the Objective Force, enhancing the targeting capability, air transportability capability, and integrating unmanned aerial vehicle Level IV control.

The digitization improvements require the aircraft to return to a remanufacturing facility. This major improvement requires the installation of a new data bus and system's architecture in Longbow lots 1-6 (284 aircraft) and enables digital communications with Object Force platforms. The proposed plan will take advantage of returning to a remanufacturing facility to combine currently funded initiatives such as the Joint Tactical Radio System, Modernized Target and Acquisition Designation Sight, and Aircraft Survivability Equipment installation efforts to limit the impacts of these major improvements on our Apache unit readiness.

Question. What is the extent of the plan? Does it call for more extensive depot-level maintenance? A rebuild program? Please explain.

Answer. The plan includes a combination of a rebuild program and field retrofit. Block I Longbows from lots 1-6 must return to the remanufacturing facility for the necessary digitization improvements. The remaining 217 Longbows from lots 7-10 would receive retrofits in the field. Several of these improvements are software upgrades. Also, items such as the new composite rotor blade would be fielded through the Army Working Capital Fund as spares to maximize utilization of rotor blades currently fielded.

Question. How is this plan reflected in the fiscal year 2004 budget request? If not, why?

Answer. This plan is not reflected in the fiscal year 2004 budget submission because the Longbow Apache Multi-Year II contract runs through fiscal year 2007 and the Comanche Acquisition Decision Memorandum was subsequent to the 2004 budget submission. Funding for this plan will be reviewed for the fiscal year 2005 budget submission.

FMTV Recompetition

Question. The decision on recompetition of the Family of Medium Tactical Vehicles (FMTV) contract is scheduled for March of 2003. The budget request for fiscal year 2004 is \$309.8 million, down from \$662.9 million in fiscal year 2003.

The Committee understands that a decision on the FMTV recompetition is scheduled for March 2003. Is the Army still on schedule to make its selection?

Answer. The FMTV A1 competitive rebuy contract award has been delayed for up to 30 days, until April 2003, while two remaining certifications/notifications are provided to Congress.

Question. Funding for the FMTV program declines substantially, by over \$350 million, from fiscal year 2003 to the 2004 request. Why?

Answer. Fiscal year 2003 funded the last year of the current FMTV production contract, as well as the first year of the FMTV A1 competitive rebuy production contract.

Question. In the Fiscal Year 2003 Defense Appropriations Act, the Congress provided new multi-year procurement authority to support FMTV recompetition. What are the Army's plans for awarding a multi-year contract for this program in fiscal year 2003?

Answer. The Army is nearing contract award. The FMTV A1 competitive rebuy contract award has been delayed until April 2003 while two remaining certifications/notifications are provided to Congress.

Question. What is the Army's total requirement for the FMTV? What is the outstanding requirement projected as of the end of fiscal year 2003?

Answer. The Army's total requirement for the FMTV is 83,170 trucks and 10,000 trailers. As of the end of the current production contract, the Army will have procured 21,876 trucks and 2,214 trailers, or 26.3 percent and 22.1 percent, respectively, of its total requirement.

Question. When do you anticipate that the Army will have fully met its FMTV requirements?

Answer. FMTV would meet its total requirement with procurement in fiscal year 2022, subject to funding levels.

Question. Does the advent of the Stryker Brigades, and ultimately the Objective Force, alter the Army's requirement for trucks? If so, please explain.

Answer. There has been an increase in the Army's requirement for trucks as a result of the Stryker Brigades. However, the total truck requirement is expected to decrease as a result of the transformation to the Objective Force. We expect to achieve this reduction through vehicle technologies that combine medium and heavy tactical vehicles into a single family of trucks.

Joint Tactical Radio System (JTRS)

Question. The Joint Tactical Radio System (JTRS) program is a family of software programmable, reconfigurable digital radios that will support networked voice, data and video transmissions. The program is managed through a Joint Program Office led by the Army. Nearly \$600 million is currently programmed within the Army for JTRS of which \$134.7 million is requested in the fiscal year 2004 budget. Among the challenges for the system are developing the software which is fundamental to the system's operation and interoperability with other radios, and ensuring equal emphasis on this program from all of the Services each of which has responsibilities in the development of this system through the Joint Program Office.

What is the current schedule for this program? Do you anticipate that the Army will meet the established development and fielding timeline?

Answer. The Army is currently following an aggressive schedule to develop and field the JTRS Cluster 1 radio. After a successful Army System Acquisition Review Council in May 2002 and Defense Acquisition Board in June 2002, a cost-plus award fee contract was awarded to the Boeing Company in June 2002. The current top-level acquisition schedule plans for an early operational test beginning in the fourth quarter of fiscal year 2004, a development/operational/limited user test beginning in the third quarter of fiscal year 2005, and a multi-service operational test and evaluation beginning in the fourth quarter of fiscal year 2006.

These test events provide a basis for decision reviews, which consist of an overarching integrating product team in the second quarter of fiscal year 2005, a Milestone C decision in the second quarter of fiscal year 2006, and a full-rate production decision in the second quarter of fiscal year 2007. The first unit equipped is the second quarter of fiscal year 2007.

Since contract award approximately nine months ago, the program has

successfully completed an integrated baseline review, a system design review, and is closing out remaining actions associated with the hardware preliminary design reviews. Also upcoming are a software preliminary design review and a critical design review. The contractor has indicated that they would like an additional 90 days to get to the early operational assessment. After the critical design review, a decision will be made on any movement of the schedule, when sufficient data will be available. Overall, the Army expects to meet the established development and fielding timeline established in the acquisition program baseline, given the currently funded levels.

Question. The JTRS program is managed through a Joint Program Office for which the Army serves as the lead. Please explain how management responsibilities and funding are divided between the various services.

Answer. The JTRS Waveform Program is responsible for funding the evolution of the software communications architecture, development of the cryptographic algorithms, and the waveform software application used by the Service JTRS radios. The JTRS Waveform Program provides the capstone acquisition strategy, security verification, and JTRS certification to ensure the cost-effective procurement of interoperable radios for all the Services. Each grouping of radio procurements is defined as a Cluster program. Each Cluster program is responsible for developing, testing, and producing their Cluster radio sets. Each Service funds their procurement of radios through the Cluster program that meets their communications requirement.

Question. In your view, are your peers in the other Services providing equal emphasis on this program to ensure it will meet established development milestones?

Answer. Yes, the all Services are providing equal emphasis on JTRS. Each Service will meet their communications requirement through a grouping of radio procurements or Clusters. Currently, Clusters 1, 2, 3, and 4 have been identified, and the Clusters are successfully executing to established development milestones.

Question. Please explain the significance of the JTRS program to Army communications overall and to fielding the Future Combat System (FCS) in particular.

Answer. The Army Transformation Campaign Plan envisions a seamless communications architecture that enables interoperability across Services, platforms, and echelons of command. While numerous radio sets currently support the Army, JTRS provides a family of interoperable radio sets, capable of loading multiple waveforms, to support Joint operations. JTRS enables the Army to support Joint operations by providing the capability to transmit, receive, bridge, and gateway between similar and diverse waveforms and network protocols used within the radio frequency spectrum and across Service boundaries.

The FCS network communications architecture provides network-centric communications connectivity to the unit of action. The JTRS is a critical enabler of the FCS command, control, communications, computers, intelligence, surveillance, and reconnaissance capabilities. Every entity within FCS utilizes a software programmable radio and an associated networking waveform capable of interoperating within the FCS heterogeneous network. Large ground vehicles will incorporate JTRS Cluster 1 and utilize the wideband networking waveform for FCS network interconnectivity. Small air/ground sensors and soldiers utilize the JTRS small form factor radio along with the embedded networking waveform for FCS network interconnectivity.

Question. What radios will JTRS eventually replace?

Answer. JTRS will combine the functionality of numerous single function radios among the services into a single, Joint-interoperable family of radios. JTRS will operate with many legacy waveforms currently used by military and civilian agencies and incorporate new waveforms as they are developed. The components of the JTRS family of radio sets will be scaleable in terms of form, fit, and cost to meet specific user operational needs.

Question. What is included in the fiscal year 2004 budget request for this program? For the out years?

Answer. The fiscal year 2004 budget request for the JTRS Joint Program Office is \$134.7 million. This will fund continued maintenance, evolution, and configuration control of the software communications architecture; continued funding of JTRS waveform contracts; continued development of software cryptographic algorithms and other security-related activity; continued technology insertion activities; continued test and certification activities to insure interoperability of all JTRS systems; management and transition of the Joint Task Force Warfighter New Equipment Training (WARNET) program; and technical and non-technical program support. Out year funding is similarly structured.

The JTRS Cluster 1 program is funded in accordance with Department of Defense acquisition guidance. This guidance directs that DoD shall strive to provide realistic cost estimates. As such, the Defense Acquisition Board decision recognized the aggressive JTRS Cluster 1 schedule and associated cost risk and directed the program to be funded to reflect Joint Cost Position and Cost Analysis Improvement Group recommendations. Cluster 1 funding in fiscal year 2005 and out includes requirements for the continuation of contractual development efforts, testing, and management and program office support and technical support requirements.

Question. What progress is planned with the fiscal year 2004 funding?

Answer. The 21 JTRS waveforms included in the Cluster 1 contract will be ready for early operational assessment in the fourth quarter of fiscal year 2004 with limited functionality. The Single Channel Ground and Airborne Radio System, Enhance System Improvement Program waveform development will be completed, as will the development of a number of other waveforms. Potentially, development of other JTRS operational requirements document threshold waveforms will be started, depending on funding availability. Additionally, the first cryptographic algorithms will be delivered. Software communications architecture evolution and configuration control will continue, significant test and certification activity will occur, and technology insertion opportunities will be identified and pursued.

The Joint Staff coordination process is nearing completion for the Joint Task Force WARNET program. This process will further define requirements for transitioning the program, with results being implemented by, the Joint Program Office in fiscal year 2004. In fiscal year 2004, the JTRS Cluster 1 program will continue design, development, and support of the ground and airborne sets and design of ground vehicular installation kits for platforms required for testing. An early operational test is planned for the fourth quarter of fiscal year 2004, with, ramp-up for conduct and coordination of the test beginning in fiscal year 2003. The prime contractor and major subcontractors are expected to complete the build of pre-engineering development models, and the contractor expects to begin testing JTRS Cluster 1 prototypes in April 2004. The contractor will also start to

ramp-up for the fabrication and build of the engineering development models.

Training Ammunition

Question. Describe the process used to develop budget estimates for training ammunition.

Answer. Ammunition requirements for weapons training are based on proponent-developed Department of the Army (DA)-approved training strategies. Once a strategy is approved it is added into DA Pamphlet 350-38 and resourcing for it incorporated into the Program Objective Memorandum (POM). To get the POM requirement, the Army Training Support Center maintains a database containing all of the Army's weapons training strategies and ammunition requirements for each strategy, by ammunition type and year. Currently, the Army's major commands input their weapons densities and unit category into the database. The merger of these sources of data--strategy requirements, weapons densities, and unit category--provides the annual Army training ammunition requirements.

The Army is currently transitioning to a new database that will accommodate the changed format of the revised fiscal year 2005 Army weapons training strategy. The revised strategy eliminated category clarifications and is instead organized by a more detailed unit type. The new data base still requires the Army to input strategy requirements, but ``feeds'' from other Army data bases will provide weapons densities by unit identification code, modified table of organization and equipment, and installation. After the Army major commands verify this data, a training ammunition requirements report is generated and serves as the basis for DA-approved training ammunition requirements. Additionally, several Army major commands submit non-approved training requirements for consideration. Training related to contingency operations is an example of these non-approved requirements.

Once the baseline Army training ammunition requirements are developed, a number of DA and Army Materiel Command staff agencies meet to discuss issues such as execution rates, supply availability, and anticipated production for each type of ammunition. Decisions about what to program and in what quantities emerge from these meetings.

Question. The Committee understands that the fiscal year 2004 budget request provides ammunition sufficient to meet a ``C-2'' level of training readiness. Why?

Answer. Army training ammunition is funded at the C-2 level in FY04. The Army desires to fund training ammunition at the C-1 level, but the reality is that training ammunition competes for funding with other Army priorities. While there is moderate risk in funding training ammunition at the C-2 level, the FY04 budget reflects the best balance between available funds and Army priorities.

Question. Given deployments for the global war on terrorism and potentially in Iraq, is the Army executing its live-fire training program at a ``C-2'' level or higher? Please explain.

Answer. For fiscal year 2004, the Army is funded at the C-2 level for training ammunition. At present, however, the Army is executing its live-fire training program at the C-1 level, and for some types of munitions, above the C-1 level. First, as Reserve Component (RC) units prepare to deploy, whether for U.S. or overseas missions, they are required to train to Active Component standards. For most, this entails individual weapons qualification. However, some RC units must also

perform collective training as well as individual qualification. Second, prior to the start of any operations in Iraq; units in the area of operations conduct a more intense level of training than that prescribed by the Army's peacetime weapons training strategy. Not only do they train to more rigorous levels, but they also conduct familiarization training with a few items not normally trained in peacetime. The intent behind such training is to ensure soldiers understand how the munitions will perform before they actually use them for the first time in combat. Third, the number of contingency operations involving Army soldiers has grown in recent years. In addition to supporting training for operations in Iraq, Afghanistan, and the United States, we also are supporting training for soldiers for operations in Guantanamo Bay, Kosovo, and Bosnia. Training ammunition support for these unprogrammed requirements currently is being sourced from other, lower-priority units' training ammunition, or from other available stocks.

Question. What opportunities are provided for live-fire training with modernized or preferred munitions in this budget request?

Answer. In most cases, the modernized or preferred round cannot be fired on existing ranges because of environmental or safety danger zone restrictions.

Additionally, preferred and modernized rounds tend to be expensive. Nonetheless, the Army has programmed a variety of training-unique variants of these rounds and has incorporated them into its current weapons training strategies. Examples include the 120mm tank training round, 25mm training round, 30mm training round, and the 120mm mortar full-range training round.

Question. The Committee understands that the Army's policy for live-fire training with modernized or preferred munitions such as shoulder-launched missiles is one missile per nine-man squad per year. All other training is conducted with ``sub-caliber'' devices. Why does the Army limit training on such systems? Has such training expanded in the wake of recent U.S. deployments?

Answer. The Army limits live-fire training with modernized or preferred munitions for a number of reasons, including safety, environmental constraints, and the high cost of many of the munitions involved. The use of training aids, devices, simulators, and simulations helps hold down the cost of live-fire training while still training soldiers to standard. However, in addition to training to more rigorous levels during training in Afghanistan and Kuwait, units also trained with a few items for which Army training strategies have no live-fire requirement. Javelin missiles were an example of such an item. The intent behind training with these and other items not normally used in live-fire training was to ensure soldiers understood how the munitions would perform before they actually used them for the first time in combat.

War Reserve Ammunition

Question. The Army has a backlog of approximately \$1 billion in war reserves of ammunition. The fiscal year 2004 budget request includes \$1.3 billion for procurement of ammunition of which \$139 million is for war reserve stocks. The overall funding level for ammunition in the fiscal year 2004 request is \$56.9 million greater than 2003.

Please describe the state of the war reserve of ammunition. What are the total stockage requirements by major types of ammunitions (small arms, tank ammo, mortars, etc.)? What are the present fill

levels for these categories?

Answer. Significant shortages of key preferred munitions exist throughout the Army inventory. Underfunded programs, production stoppages, and other obstacles continue to exacerbate already short munitions lines. Additionally, the global war on terrorism, unresourced mobilization, and surge training have further reduced stocks maintained in stateside depots which are used to source ammunition basic loads and sustainment stocks.

The following table lists the total requirements and percentage fill for conventional ammunition war reserve stockage requirements and percentage fill. The categories do not include missile items.

CONVENTIONAL AMMUNITION WAR RESERVE STOCKAGE REQUIREMENTS AND FILL
PERCENTAGE

Main categories	Requirements	Percent fill
Tank.....	241,325	83
SBCT Main Gun Systems.....	19,536	100
Mortars.....	1,251,284	60
Artillery.....	23,277,361	71
Rockets.....	261,610	17
Anti-Tank Rockets.....	163,647	54
Demolition.....	26,220,710	77
Small Arms.....	826,743,769	69
Medium Caliber.....	24,400,701	79
Illumination/Pyrotechnics.....	2,675,167	100
Mine/Countermine.....	935,208	53
Non-Lethal.....	5,319,077	19

Question. How much of the \$1.3 billion included for ammunition in the fiscal year 2004 budget request goes toward filling war reserve requirements?

Answer. The Army Procurement of Ammunition appropriation for fiscal year 2004 includes \$129 million for ammunition which goes toward filling war reserve requirements.

Question. Have war reserve requirements changed as a result of the global war on terrorism and other potential deployments?

Answer. War reserve requirements have not been affected. Munitions required to fight terrorism and arm units for potential deployments are included in the Army's requirements to defend the homeland, fight two overlapping wars, and conduct small-scale contingencies.

Question. Do you anticipate that a supplemental funding request for fiscal year 2003 will include a component for ammunition war reserves? If so what is the Army's estimate?

Answer. Yes, the Army's request will include a component for ammunition war reserves. The Army's estimated cost to replenish war reserve ammunition is currently being refined based upon revised planning assumptions. Once completed, the Army's requirement will be contained within the overall Department of Defense supplemental request.

Land Warrior Program

Question. \$94.8 million is included in Other Procurement, Army in fiscal year 2004 to provide for the initial procurement of the Land

Warrior system. Land Warrior provides dismounted forces with common digital situational data and links to other weapons such as tanks and artillery. The Army plans to procure an additional 4,800 sets through a low-rate initial production contract in fiscal years 2005-2006.

The fiscal year 2004 budget request includes \$94.8 million for procurement of about 2,000 Land Warrior sets. What is the basis for the initial procurement quantity of these items?

Answer. Land Warrior initial capability, or Block I operational requirement document (ORD) compliant, systems were slated for production in fiscal year 2004. The 1,875 Land Warrior initial capability systems were intended only for the 75th Ranger Regiment. The remaining 100 systems were to be used by the Army Training and Doctrine Command schools. Although full functionality of the Land Warrior initial capability system was achieved during developmental testing, overall results and low demonstrated reliability in an early functional assessment indicated that this system would not likely be reliable enough to enter operational testing as originally planned. As a result, the program is now concentrating on the Land Warrior-Stryker Interoperable/Block II system and will not produce any units in fiscal year 2004. The Army is working to re-designate the fiscal year 2004 Land Warrior procurement dollars to support additional research, development, testing, and evaluation and procurement of items under the Rapid Fielding Initiative.

Question. What capability will the initial Land Warrior sets provide?

Answer. The Land Warrior initial capability system was originally designed to meet the Block I ORD requirements such as increased command and control through situational awareness and understanding, enhanced soldier survivability with improved body armor, increased mobility with use of global positioning system, and other enhancements in soldier equipment. Key requirements for the Block I system were to provide increased functionality without increasing the soldier's current load and provide a 12-hour power requirement to power the Land Warrior system in any operational environment. Program focus has shifted to design, development, and fielding of the Land Warrior Stryker-Interoperable system. Land Warrior Stryker-Interoperable is scheduled for full production in fiscal year 2006 with the first unit equipped in fiscal year 2006. The Land Warrior Stryker-Interoperable system will meet all Block I and II ORD requirements.

Question. What is the fielding plan for Land Warrior?

Answer. The Land Warrior Stryker-Interoperable system will be fielded to the 75th Ranger Regiment and six Stryker Brigade Combat Teams starting in fiscal year 2006 and ending in fiscal year 2008. The Army then plans to begin fielding an upgraded version of Land Warrior to the Special Forces Groups and the Objective Force units of action beginning in fiscal year 2009.

Question. Weight has always been a technical problem for the Land Warrior system. Initial versions of the hardware weighed as much as 92 pounds. Describe the units that the Army proposes to buy in fiscal year 2004 and how the Army has addressed weight issues for this system.

Answer. The Land Warrior ORD reflects a 40-pound objective and 50-pound threshold weight requirement for the advanced capability/Block III system. The Land Warrior program is chartered with integrating currently fielded and proposed government-furnished and contractor-designed equipment into a system that provides overmatch capability to the infantryman and those who fight with infantrymen. The Army looks at reducing the soldier's load by pursuing technologies that can produce

high-payoff weight savings, advanced battery technologies, the XM8 advanced combat rifle, and science and technology programs such as the Objective Force Warrior advanced technology demonstration and lightweight Squad Automatic Weapon.

Question. The Army budget request indicates that the Land Warrior sets planned for procurement in 2004 represent a mix of commercial and military specific items. Please indicate which components are commercial and which are military specific.

Answer. The Land Warrior program intends to take advantage of state-of-the-art commercially developed items such as local area network technology and antennae, audio headset, and microphone that meet specific Land Warrior requirements. Other commercial products that meet or exceed Land Warrior objective requirements will be integrated as pre-planned product improvements. These components will be integrated into military items such as the Modular Lightweight Load-carrying Equipment, Advanced Combat Helmet, Integrated Body Armor, and uniform enhancements to provide the soldier with an optimum fighting system tailored to his specific mission requirements.

Question. Has the mix of commercial and military specific components changed over the course of the Land Warrior system's development?

Answer. Yes. As commercially developed technologies mature, we continue to add improvements to the Land Warrior system design to improve functionality and reduce weight. We will continue to explore areas in order to meet the weight and power objectives of the ORD in a spiral development of the Objective Force Warrior to continue to provide emerging technologies, particularly in the area of power management. As we integrate commercial and military specific components, we have two main concerns relating to security issues and environmental concerns. Security concerns include soldiers operating in various networks while being protected from radio frequency jamming or interception from the enemy. Commercially developed hardware must also be ruggedized to be able to withstand the rigor of a battlefield environment and still be able to operate in austere environments without mission-affecting failures.

Question. Please describe the relationship between Land Warrior and the Objective Force Warrior system that is presently in research and development.

Answer. Objective Force Warrior is a science and technology advanced technology demonstration program that will demonstrate the technologies and prototypedesign of an integrated soldier system of systems at Technology Readiness Level 6 providing a revolutionary increase in the operational effectiveness of soldiers and small teams, with a 50-pound fighting load and 24-hour sustained operations without resupply. The demonstration will include squad level (with platoon headquarters and lateral squad leaders) iterative limited objective experiments and capstone demonstration with 20 to 25 prototype systems during fiscal year 2006. The Objective Force Warrior advanced technology demonstration will transition the technology and system design to Program Executive Office (PEO)-Soldier for the acquisition and fielding of the Land Warrior advanced capability (Block III) that will support the Objective Force unit of action.

Question. When does the Army plan to begin the transition to fielding Objective Force Warrior?

Answer. The Objective Force Warrior advanced technology demonstration will conclude in fiscal year 2006 with the transition of a soldier system of systems to PEO-Soldier for system development and

demonstration of Land Warrior-advanced capability. The transition strategy also includes early insertion of mature component technologies to the initial versions of Land Warrior. PEO-Soldier is involved with the planning and conduct of the Objective Force Warrior advanced technology demonstration, particularly program oversight and the capstone demonstration. The Objective Force Warrior advanced technology demonstration contractual mechanism includes an option to move directly into system development and design.

Venture Capital Fund

Question. In the fiscal year 2002 Department of Defense Appropriations Act, the Congress provided \$25 million for the Army to establish a Venture Capital Fund to identify and develop novel commercial sector technologies for military application. In the fiscal year 2003 DoD Appropriations Act, Section 8105 provided the Army with the authority to transfer up to \$20 million in unobligated research and development balances to continue this fund for fiscal years 2003-2005.

What measures has the Army taken to establish and operate the Venture Capital Fund over the past two years?

Answer. In September 2002, the Army issued a Broad Agency Announcement to solicit proposals to manage the venture capital initiative provided for by the Section 8150 of the 2002 Department of Defense Appropriations Act. The Army received 20 proposals in response to the BAA and has selected a winning proposal. The Army is required by the 2002 Department of Defense Appropriations Act to use an "Other Transaction" (OT) as the basis of the agreement between itself and the entity managing the venture capital initiative. The OT is currently being negotiated between the Army and winning company. The negotiations are expected to be completed and the OT signed by the end of April 2003.

Question. How much of the funding provided in the FY 2002 Appropriations bill has been obligated to date?

Answer. At this time, none of the \$25 million provided by Section 8150 of the fiscal year 2002 Department of Defense Appropriations Act has been obligated for the Venture Capital Investment Corporation. The Army will obligate the entire \$25 million at execution of the OT agreement between the Army and the not-for-profit corporation that will manage the venture capital. The Army expects this will occur at the end of April 2003.

Question. What technologies has the Army focused on with the funding provided through the Venture Capital fund?

Answer. The Army is using the opportunity of the venture capital initiative to focus on technology associated with power and energy for the soldier. Technologies of interest include, but are not limited to, devices, systems and software that generate, store, control, and manage the power and energy required by the individual soldier for communications, computing, sensing, weapons functioning, mobility, and comfort. Parameters of interest for these technologies include low weight and volume, safety, reliability, cost effectiveness, longevity, reduced system power requirements, and minimal logistics impact.

Question. Please describe the measures the Army uses to conduct oversight and management of the Fund's activities.

Answer. The Army plans on requiring periodic reporting by the not-for-profit corporation that will manage its venture capital initiative. Additionally, the OT agreement will include incentive structures to encourage the attainment of Army goals for the initiative. Finally, the

Army also anticipates that the not-for-profit corporation that will manage the venture fund will notify the Army through the Army agreements officer when it plans on taking significant investment actions.

Question. Would you recommend establishing permanent authority for the Venture Capital Fund?

Answer. While this initiative is still early in its development, it does appear to hold considerable promise. The initial response to the Broad Agency Announcement, as well as the Central Intelligence Agency's success with In-Q-Tel, is encouraging. Section 8105 of the fiscal year 2003 Department of Defense Appropriations Act allows funding the Army venture capital initiative for an additional three years. This provision will provide the Army the flexibility and authority it needs in the near term to maximize the opportunities for making its venture capital initiative a success and for determining whether to recommend that Congress provide permanent authority for the initiative.

Patriot PAC-3 Missile

Question. The fiscal year 2004 budget request proposes \$561.6 million to procure 108 Patriot PAC-3 missiles. Including the acceleration of this program funded in the fiscal year 2003 Omnibus Appropriations Act, \$592.2 million is available for this program in fiscal year 2003. The Omnibus added \$104 million to the program and increased the procurement quantity to 100 missiles. The fiscal year 2004 budget also proposes transferring funding and management of this program from the Missile Defense Agency to the Army.

Please explain results of the Patriot PAC-3 acceleration funded in the fiscal year 2003 Omnibus Appropriations Act.

Answer. Fiscal year 2003 acceleration funding provided for an accelerated delivery schedule for low-rate initial production (LRIP)-2 and LRIP-3 missiles. LRIP-2 (40 missiles) will be delivered three months ahead of the contracted schedule and LRIP-3 (72 missiles), 10 months ahead of schedule. Fiscal year 2003 acceleration funding also provided for the procurement of 12 additional missiles in fiscal year 2003 bringing the fiscal year 2003 contract total to 100.

Question. Does the quantity proposed in the fiscal year 2004 budget rely on the acceleration funded in the fiscal year 2003 Omnibus Appropriations Act?

Answer. No, the fiscal year 2004 schedule is based on the accelerated program but the quantity is independent.

Question. What quantity of Patriot PAC-3 missiles is proposed in fiscal year 2004? Through the Future Years Defense Program (FYDP).

Answer. A total buy of 108 PAC-3 missiles is proposed in fiscal year 2004, and the fiscal year 2004 President's budget presents a total buy through the FYDP of 1,159.

Question. Please explain how accelerating the Patriot PAC-3 program fits into the Administration's plan to deploy a national missile defense system in 2004-2005?

Answer. Patriot is the only fielded system capable of defeating tactical ballistic missiles. Patriot is an element of the Ballistic Missile Defense System.

Question. Over the past two years, the Department of Defense proposed funding both research and development for the Patriot PAC-3 system as well as procurement within the Army. In both instances, the Congress transferred both management and funding to the Missile Defense Agency. The fiscal year 2004 budget again proposes funding Patriot PAC-

3 in the Army. Why? What criteria were used to determine whether the Army or Missile Defense Agency should fund and manage this program?

Answer. Subsection 224(b) of title 10, United States Code, requires the establishment of criteria for the transfer of responsibility for a ballistic missile defense program from the Director, Missile Defense Agency (MDA) to the Secretary of a military department. On December 30, 2002, the Under Secretary of Defense (Acquisition, Technology and Logistics) established the following criteria to carry out production plans: technical maturity; availability of facilities for production; and funds programmed in the Future Years Defense Program.

In accordance with subsection 224(c), the Under Secretary of Defense (Acquisition, Technology and Logistics) certified that PAC-3 met the established criteria and notified Congress of his intent to transfer the PAC-3 program to the Army, including the responsibility for research, development, test, and evaluation related to Army requirements. Additionally, the Under Secretary of Defense (Acquisition, Technology and Logistics) informed Congress that, in conjunction with the transfer of responsibility for PAC-3 program, the Medium Extended Air Defense System would be realigned from the Missile Defense Agency to the Army.

Chemical Agents Demilitarization

Question. In fiscal year 2003, the Army received nearly \$1.49 billion for Chemical Agents and Munitions Destruction. This amount included funding to assemble equipment for the plants used to destroy chemical agents and munitions. The fiscal year 2004 request totals \$1.65 billion, and includes \$119.8 million for military construction that the Administration proposes transferring from the Military Construction budget request to the Department of Defense request.

Please explain the reasoning behind the transfer of funds from Military Construction to the Chemical Agents and Munitions Destruction account.

Answer. Section 141(b) of the fiscal year 2003 National Defense Authorization Act requires, beginning in fiscal year 2004, the Under Secretary of Defense (Comptroller) shall submit an annual certification to Congress that the budget request for the chemical agents and munitions destruction program has been submitted in accordance with the requirements of Section 1412 of the National Defense Authorization Act of 1986. The 1986 Authorization Act requires that chemical demilitarization funds be set forth in the budget in a separate account and not included in the budget accounts for any military department. In order to comply with the fiscal year 2003 Authorization Act language, funding for the chemical demilitarization program, including construction, is consolidated into a single account. The Army will maintain executive agent responsibility for this program.

Question. How does the transfer of this funding help the effectiveness of the program?

Answer. The inclusion of construction funding in the single Chemical Agents and Munitions Destruction, Army account is not expected to change the effectiveness of the program.

[Clerk's note.-- End of questions submitted by Mr. Lewis. The Fiscal Year 2004 Army Posture Statement, as referred to on page 4 follows:]

[GRAPHIC(S) NOT AVAILABLE IN TIFF FORMAT]

Thursday, March 20, 2003.

FISCAL YEAR 2004 NAVY POSTURE

WITNESSES

HON. HANSFORD T. JOHNSON, ACTING SECRETARY OF THE NAVY
ADMIRAL VERNON CLARK, CHIEF OF NAVAL OPERATIONS, UNITED STATES NAVY
GENERAL MICHAEL W. HAGEE, COMMANDANT OF THE MARINE CORPS, UNITED STATES
MARINE CORPS

Introduction

Mr. Lewis. The Committee will come to order.

This morning, it is my privilege to welcome the Honorable H.T. Johnson, Acting Secretary of the Navy, and Admiral Vernon Clark, Chief of Naval Operations, as well as General Michael Hagee, the Commandant of the Marine Corps.

Chief, and Commandant, and Mr. Secretary, welcome. We will probably all keep our statements reasonably brief this morning and spend what time we can in exchange; but I want you to know that if we are brief, it is not out of any lack of respect for either our statements or yours, but rather because of the very important work you are about this moment. All of us know that the ships at sea are at the point of this effort in the Middle East. And indeed as our men and women are beginning to go into action, it is a critical time for the country, I think for the world as well.

It is important for me to say to you, but also to say to those who are listening, that some people are talking about transforming the military around this town. The Navy clearly gets it, they are way out on that point as well, making changes, a new direction for both the Navy and the Marine Corps that I think bodes very well for our country's future.

I have said before that these budgets are sizeable. They are not nearly as sizeable as some of us would prefer, but nonetheless sizeable. And we spend this money on behalf of peace, and our effort in the Middle East at this moment is a reflection of the President's commitment, the Commander in Chief's commitment to carry forward the war on terrorism and to eliminate those who would use that negative force to have their way in the world. It is very important for all of us to know as well that even though this battle has begun--and we hope that this one will end reasonably swiftly--that is only the beginning.

And so the discussion of the fiscal 2004 Budget for the Navy sets a plane that is a reflection of not just today's requirement, but the requirement for many years ahead. The challenge is very real. We are taking it seriously. I know that you are taking it seriously, too.

Before I call on you, Mr. Secretary, let me call on my colleague Jack Murtha.

Mr. Murtha. In light of what the Chairman said, I have no further comments. I am looking forward to getting you guys out of here.

Mr. Lewis. Mr. Secretary, I have shown this to you, but I

might let the audience know that already the Navy is sending pictures by way of e-mail which you can print out. This picture is of a Tomahawk missile that was fired last night off the USS DONALD COOK. It is the reflection of the will as well as the capability of the United States Navy and American forces.

Recognition of Greg Walters, Committee Staff

Welcome, gentlemen. Now, I wonder if I could, before you start, I see a friend of mine has walked into the room. So before we start, I want to welcome a gentleman who has left our staff to go out in the private world. We don't have the capability to fund our fine staff at levels that we should when they have young children, especially in this marketplace. I am afraid those who would communicate with us about military matters have needs as well, perhaps as great a need as we have.

This young man has worked with our Committee for 18 years, has been on the Subcommittee for most of those years, most recently he was responsible for Navy programs. But he is well noted in the community as one of the real experts in acquisition and, to say the least, has helped us begin to raise questions about the challenges we have relative to acquisition over time.

So with that, let me let him know that we are proud of his service and look forward to continuing a relationship. We want to thank you, Greg Walters. Stand up, will you, Greg? We thank you, Greg. And while we will miss you, we wish you and Sarah and Evan the best of all that is available in the months and years ahead.

So, Mr. Secretary, that is a very appropriate way to begin.

Summary Statement of Secretary Johnson

Secretary Johnson. Thank you, sir. Mr. Chairman, Congressman Murtha, I will follow your lead and have very brief comments. It is an honor to appear before you.

Today, in the Persian Gulf and around the world, our Nation is well served by the most professional and capable naval force in the world. I hope that each of you, and Greg, will take great pride in preparing this force for doing what they are asked to do now. Over the last few years you have certainly prepared our Marines, Sailors, and all the Armed Forces for the job that lies ahead. Our Marines, Sailors, along with Army, Air Force, and Coast Guard partners, are on station around the world defending our country, working on the war, global war on terrorism, as well as just representing our country around the world, as you well know.

Today, 73 percent of our ships are at sea, which is a very high percent, and Admiral Clark will talk about that; 66 percent of our Marines' operating forces are forwarddeployed. In fact, if you looked very carefully, you would find the percent is probably even a little higher. They are on the front line, and they are well prepared to do our Nation's desires.

People are our most precious resource. We can provide the best equipment, but if we don't have the people capable of operating that, we aren't very successful. Our recruiting and retention have been at all-time highs, and we are very proud of

our sailors and Marines as they go forward.

FISCAL YEAR 2004 BUDGET REQUEST

In this year's budget we have tried to look forward. We made some very difficult decisions, particularly on retiring some ships. But we are building new ships. We have dedicated \$11.4 billion to construct ships, to convert some of the old SSBNs to SSGNs, two more, and also to do our cruiser conversion.

We continue to look at aircraft also, buying 100 new aircraft. As you mentioned, Mr. Chairman, we would like to buy more, but we want to make sure that what we have are well maintained and manned by capable sailors and Marines.

We are also taking a new approach to how we build ships and how we build everything in our Department and I think across the Department of Defense. Our next-generation aircraft carrier will use new techniques; it will be an electric ship, if you will. We are also looking at the DD(X) as a centerpiece as we move forward. And, as many of you know, we are working on the Littoral Combat Ship. In all of these we are looking at the hull, if you will--we call it the sea frame--and then we are looking at putting equipment on board the sea frame, and then finally putting electronics at the last minute, to get electronics that is up to date. We continue to move forward on the Joint Strike Fighter, upgrading the Hawkeye. And realizing the EA-6B Prowler is our most difficult aircraft to maintain and are planned by EA-18G to replace that.

As you well know, the cost of operations and the support of the Global War on Terrorism are not part of our fiscal year 2004 budget. We have not yet sent over a supplemental. We will be working on that very closely with you as we go forward.

On behalf of all the sailors and Marines around the world, I would like to thank this Committee for equipping them and making them ready.

I would also like to say as a personal comment, that you have very strong leaders over the Navy and Marine Corps. Admiral Clark and General Hagee are dynamic leaders that our Marines and sailors follow around the world. We thank you, sir, and I look forward to answering your questions.

Mr. Lewis. Thank you, Mr. Secretary.

[The biographical sketch and statement of Secretary Johnson follows:]

[GRAPHIC(S) NOT AVAILABLE IN TIFF FORMAT]

Mr. Lewis. Chief.

Summary Statement of Admiral Clark

Admiral Clark. Thank you, Mr. Secretary, and Congressman Murtha, and members of the Committee. And I just want to start by saying what a privilege it is for me to be here this morning, appearing alongside my number one joint partner, General Hagee, as part of the Navy/Marine Corps team.

And Mr. Chairman, you can imagine that I suffer a little

bit from preoccupation with other things today, but it is a privilege for me to be here and represent the men and women of the United States Navy.

SHIPS FORWARD DEPLOYED

Secretary Johnson talked about how much my Navy was underway. He did not mention this number: 55 percent of my Navy is forward deployed, engaged in this forward deployment in the global war against terrorism.

I would like to talk about taking the sovereignty of the United States of America to the far corners of the Earth, and that is what they are doing today. Mr. Chairman, when I wrote my notes, I said they have to be over there to be ready when and if the President orders us to action. Of course, this morning we know that it is; they have to be ready as he orders them to action. And we got to see that last night.

We oftentimes talk about the gray ships. We don't talk about some of the other part of the structure. Over 130 ships are also underway, some leased, some owned, supporting the land forces alone. I just want to say--and I will keep my comments as brief as possible--that I have never seen this Navy this ready since I have been part of it, and that is since 1968. I believe that it is that way because we are realizing the return on investment made by the Congress representing the citizens of the United States of America. And I believe that the action going on right now is proof positive that the judgments made were absolutely the right judgments.

I want to thank the Congress for the steps taken to help motivate our people to serve. And I won't go into each of them. Let us just say that we know there are a lot of pieces to this calculus, but we are realizing, as the Secretary said, the greatest retention that we have ever realized in our history. It is because of a lot of things, including the fact that they are reading the signals from the citizens of the United States of America, and that signal is that they appreciate what our young men and women are doing. They are making it possible for us to have the kind of ready force that we are seeing in action right now.

There are a lot of programs that make it possible. I have outlined that in my written testimony, and I won't go into it here.

READINESS

For the last 2\1/2\ years, I have been coming up here. This is the third budget that we have talked about, and I have talked about the importance of readiness. And I believe that the gains that we have realized in three years speak for themselves here. Now, we are up here to talk about the fiscal year 2004 budget, and a key to our action and our discussion today is about sustaining those gains, making it possible for us to continue to represent the Nation around the globe, but also to move forward and continue to transform our Navy and our number one partner, the Marine Corps.

We create a Navy that gives the President of the United States options--when I talk to our people, I tell them that is

what we are about. That is why we are out there--and to give joint force commanders the kind of combat capability that they need.

And our vision for future readiness--in previous years, I have talked about current readiness and the battle for people, and the number three priority was future readiness. Our vision for how to proceed in creating the future is Sea Power 21. And again, that is all itemized and documented in my written statement, and I won't go into detail here except to say it is about Sea Strike, projecting offense. It is about Sea Shield, projecting defense; something that we haven't been able to do that we need to be able to do in the future. And it is about Sea Basing, the ability to protect American sovereignty from the sea, the operational independence that comes from operating from the largest maneuver space in the planet, the world's oceans.

INVESTMENT STRATEGY

So this year's investment strategy continues the commitment to readiness, it continues the commitment to people and the battle for people, while it focuses more sharply than any budget that I have been associated with on building for the future.

The DD(X), Littoral Combat Ship, conceived from the beginning, from its birth, to be manned, to be equipped with unmanned vehicles under the sea, on the sea, in the air, to take the fight to the enemy and dominate the battlespace in the near land arenas where I am convinced our future enemy is going to come after us.

The E and F-18G, brand-new program, CVN-21. I am so excited about our ability to leap ahead and the potential in the platform. Virginia class submarines. Missile defense. The President has announced the intention that we are going to field the sea-based--interim sea-based capability next year and we are going to do that. When I talk to our folks today, I talk to them about this.

And you talked about the size of budgets, and my call to them is, look, we have got to learn how to be more effective. And as we are more effective, we will also be more efficient.

As the Congress and those who support us work to make sure that we have the resources that we need, we have to do our part, too. And we are doing a number of things to try to make ourselves more effective and efficient. And I will mention just one this morning, a manning experiment called Optimum Manning, to see if there are ways that we can introduce technology and make it better. Last night, the USS MILIUS, one of those two ships that are involved in that manning experiment, with 23 percent less people on it than all of the rest of the DDGs, was part of the group of six that launched the initial TLAM strikes into Iraq.

Another is Sea Swap. I won't talk about it, except we are doing experiments to become more effective and more efficient. So we are doing our part to create the resources to build the 21st century Navy. I would just say that in this submission, we were able to redirect almost \$2 billion directly to procurement accounts for that purpose. And over the FYDP, the number is

much larger, and our goal is to continue that process as we build for the future.

SUMMARY

And so, Mr. Chairman, in short, the Navy is on the line. Your Navy is ready. It is forward deployed, it is on scene, it is in the fight. We are focusing on the future while making sure that we are prepared for today. The young men and women of your Nation's Navy are serving right now with distinction. And I will tell you that one of the proudest moments of my career is having the chance to represent them in front of this Congress and tell you and speak to the people of America about what they are doing on the point. And so I thank you for the opportunity to be here today, and I look forward to your questions, sir.

Mr. Lewis. Thank you very much, Admiral Clark.

[The statement of Admiral Clark follows:]

[GRAPHIC(S) NOT AVAILABLE IN TIFF FORMAT]

Mr. Lewis. General Hagee.

Summary Statement of General Hagee

General Hagee. Good morning, Mr. Chairman, Congressman Murtha, distinguished members of this Committee. It is really an honor for me to be before you today to represent your Marine Corps. I would like to thank each of you for your strong support for the issues and programs that are of such vital interest to the readiness of our Armed Forces.

I would particularly like to thank you for your immediate assistance in the fiscal year 2003 omnibus appropriations bill. I recently returned from a visit to the Central Command theater of operations, and I can report to you that your Marines are ready, they are well trained, they are well equipped, thanks to you, and their morale is unbelievably high.

MARINE CORPS DEPLOYMENTS

Along with our sister services, the Navy/Marine Corps team continues to play a key role in the Global War on Terrorism and the establishment of stability and security in many of the world's troubled spots. Marines, both active and Reserve, are operating side by side with Soldiers, Sailors, Airmen, NGOs, diplomats, and many others in diverse locations around the globe, from Afghanistan to the Arabian Gulf, the Horn of Africa, Turkey, Georgian Republic, Colombia, Guantanamo Bay, and the Philippines.

Today Marines are flying from Bagram Air Base in Afghanistan, from Navy carriers at sea, and from bases along the Arabian Gulf littoral. As the Secretary mentioned, currently 66 percent of the Marine Corps operating forces are forward deployed, most of them in Kuwait, and almost 90 percent of our operating forces are either forward deployed, forward based, or forward stationed.

Marine Corps operations throughout the past year have highlighted diversity and utility of our expeditionary forces. Although we have had one of our busiest years in terms of operational deployments, participation and realistic worldwide exercises remain critical to supporting theater security cooperation plans and ensuring we maintain a ready and capable force.

Along with the Navy, we are moving out with new organizational concepts mentioned by the Chief of Naval Operations. These include Tactical Air Integration, Carrier and Expeditionary Strike Groups, Joint Network Sea Basing that the CNO mentioned. These concepts will make us more responsive, flexible, and effective in the future.

FISCAL YEAR 2004 BUDGET REQUEST

The fiscal year 2004 budget continues our efforts to modernize and transform the force. Support that you and Congress have provided over the last two years has helped us make real progress in our modernization, transformation, personnel, and readiness accounts. And as the CNO mentioned, without your support over the last few years, we could not be doing what we are doing today.

While Marines and their families have benefitted from increased appropriations for targeted pay raises and improved family houses and barracks, this Committee's support for important procurement programs has ensured that our Marines are better equipped and better prepared to survive any danger.

With regard to transformation and modernization, I am happy to report that our top Marine Corps ground programs are adequately funded over the FYDP. Among these are the Advanced Amphibious Assault Vehicle, the High Mobility Artillery Rocket System, and the Joint Lightweight 155 Howitzer.

On the aviation side, we are on track for funding for the V-22, the Joint Strike Fighter, and the four-bladed Cobra, and Huey upgrades.

READINESS AND CONTINGENCY REQUIREMENTS

Finally, we continue to make needed progress in readiness. Having recently come from the operating forces, I can tell you there is a marked positive improvement in the way we are funding for readiness now compared with just a few years ago. Much of that improvement can be directly attributed to the support that you and the rest of the Congress have provided over the last few years.

My main concern today, as mentioned by the Secretary of the Navy, with regard to funding is due to unplanned demands of current operations. We are using our third and fourth quarter funding to finance the Global War on Terrorism and for operations in Iraq. Clearly, our current contingency requirements are significant and exceed the appropriations provided to date. We ask for your continued support and will provide all required supporting details once the Commander in Chief has submitted his supplemental request.

That concern notwithstanding, your Marines are currently doing what they have been trained to do and equipped to do.

They are forward deployed and ready to support the Nation through whatever challenges lie ahead. We know who we are and we must be prepared to defend this great country. We will remain your only sea-based, rotational, truly expeditionary combined arms force ready to answer the call anytime, anywhere, as part of an Integrated Joint Force.

On behalf of all your Marines and families, sir, we thank this Committee, and I look forward to your questions.

[The biographical sketch and statement of General Hagee follows:]

[GRAPHIC(S) NOT AVAILABLE IN TIFF FORMAT]

VIRGINIA CLASS SUBMARINE ISSUES

Mr. Lewis. That was a hoorah you heard back there.

Gentlemen, we all want you to know we are very proud of the work that you are about. I find that we often spend a lot of time in this Committee, a lot more time than one might think, talking about air power. And I am sure that among my colleagues there will be some discussion of that today as well as some discussion about the supplemental.

We are going to be having a vote shortly after the hour, and it is going to involve two or three votes, so we are going to try to get your business done rather quickly. Members are going to be submitting questions for the record in an unusual volume rather than discussing these things here.

You have work to do that is serious work, but in the meantime, receiving information regarding the fiscal year 2004 budget is fundamental to our ability to help you as well.

I would like to spend just initially some moments discussing ships at sea. Clearly one of the most significant capabilities we have in terms of providing American presence around the world involve those ships. One of the elements of all of that that has always fascinated me is what we can do as we extend that power to have our enemy or potential enemy wonder whether or not we are there. And so that which is under the sea is really very, very basic to that which you described, Chief, and Mr. Secretary. I am concerned and the Committee is concerned about ongoing difficulties with the cost of providing submarine power. The Virginia class is a reflection of the heart of our concern. So I wonder if you would spend a few moments discussing that with the Committee, and then we will go forward.

Admiral Clark. Absolutely, Mr. Chairman. I have the same concerns you do. I do believe that we have taken measures in this budget that have the potential to help this process along greatly. One of the things in the fiscal year 2004 budget is an investment to get to economic order quantity numbers that make it more effective and efficient to build any--it doesn't matter if it is a submarine or anything else. When your building rate is down, you pay excessive overhead and it runs the cost up.

And when you look at the submarine program in particular, you see a number of areas. The contract is written in a way that when there are wage agreements that would be passed back, those are added to the contract and so forth. And those are issues, and those are the sources of some of the increase. But

the right thing for us to do is to get to a multiyear that allows the contractor to go to suppliers and do long-term acquisition of components so that the supplier can operate at a more effective base, and for us to get to multiple submarines a year to get on the right place on the production curve so that we are making better use of the fixed cost in the shipyard. That is provided for in this budget with a \$400 million investment in economic order quantity issues and measures. And then the attempt to get to, with the approval of the Congress, a multiyear that would allow us to make progress on that front.

MULTIYEAR PROCUREMENT AUTHORITY REQUEST

Mr. Lewis. Chief, I think you know of the Committee's reservations about multiyear contracting. The obvious difficulties we have with tankers on the air side, the lease program that is of significant ongoing controversy is a reflection of our desire to get assets out there as quickly as possible but, at the same time, maintain some control over the budget. So at the heart of your suggestion--I know the priority you give to multiyear for submarines--but clearly can't be the only answer that is in line for getting us where we need to be.

And so I just underline my ongoing question by asking it this way: Why a multiyear? How can we justify considering a multiyear when we haven't seen the first ship yet?

Admiral Clark. Well, I believe that we have been having this discussion for a couple of years. And you know my belief, that one of the things that we need to do is figure out how to become the best partners that we can become with industry. Clearly there are issues on the side of the contractor who has to produce effectively and efficiently. The responsibility for oversight in that rests with the acquisition executive. It is not a uniformed military role. But I obviously am greatly interested in it. But all the projections make it clear that if we can get to a multiyear, the kind of results that we have had in other programs reinforce the validity of the assumptions that lead us to the belief that we are going to save at least \$100 million a submarine if we do that. When we analyze the cost data and we look at the fact we are in a small market, it is the only market producing these kind of submarines. And we have suppliers that are specialty suppliers, and when they are operating on the margin and the inability to plan over the long term to properly size their employee base and their production baseline, it runs the cost up.

Now the analysis shows us--and I have looked at this analysis and examined it--that the multiyear approach is a good and smart thing to do, and it is good and it is the rule that I put out, Mr. Chairman, it needs to be good for the sailors and it needs to be good for the taxpayers. And I believe that this is.

CONTROLLING COST THROUGH MANAGEMENT

Mr. Lewis. I remember in the old days when I was spending some time examining contracts that involved the field of highway construction, that the biggest challenge we had in those days was a minor little thing called change orders. In

multiyears, Mr. Secretary, you spoke about building the frame and then you provide some supplies or other material. Then you put in the most modern of the electronics. Those are called change orders. And man, I can tell you, if I were in the private sector, I would love to have you guys lined up with every ship you have got for 10 years, and then send you the change orders at our cost and not your cost.

Yesterday the Secretary of the Air Force opened a bag of worms that I thought was most fascinating that applies to all of our branches. The Secretary talked about the fact that with the F-16, we had people purchasing the F-16 in the marketplace, other countries, and they were able to produce a product that was significantly different and better than the one that our people are fielding as a result of stability in the purchasing marketplace, and they talked about how quickly it could be done, et cetera. Frankly, it came down to a question of management. If we rely just upon multiyear procurements as the way we can improve efficiency here, somewhere down the line we are going to find a clip out there.

I am very concerned that we do more than just talk about multiyear procurement. We aren't going to spend a lot of time rehashing this again today, but there is more than just multiyear to this problem of making sure that our procurement procedures, the management of this process, is run in a way that improves our efficiency. I have dwelt on that a bit.

Mr. Murtha.

SUPPLEMENTAL FUNDING REQUIREMENTS

Mr. Murtha. Only a couple things. We need to know about the supplemental; when you need it, and when you run out of money, Mr. Secretary.

Secretary Johnson. The short answer is the summertime. And some of that is in early June and some in late July. The Marines are probably spending at the highest rate because, as the Commandant talked, 90 percent are forward based, deployed, and so forth.

Mr. Murtha. I wonder if we could borrow some from USAA. I see they got \$13 billion in your former job there; maybe they can lend us some money.

Secretary Johnson. Yes, sir.

ROTOR BLADES FOR THE CH-46

Mr. Murtha. The other thing is, I just want to mention to the Commandant, don't forget the CH-46 blades, because we are only carrying half of what you need to carry in those CH-46s and don't have them all out there. And it is such an old airplane. I know they are expensive, but we need to spend some money on those blades.

General Hagee. Sir, we couldn't agree with you more. And we are looking at that very hard. In fact, as the Navy is decommissioning some of its CH-46 Deltas, we are collecting those blades. That is a concern of mine, too, sir.

Mr. Lewis. Thank you very much, Mr. Murtha.

Mr. Frelinghuysen.

INTEGRATION OF SPECIAL OPERATIONS

Mr. Frelinghuysen. Thank you, Mr. Chairman.

Gentlemen, good morning, and thank you for your service. As we speak, the Special Ops people are doing a pretty dangerous work. And we salute their courage, and we know that they will perform admirably.

I have some questions relative to the Special Operations and how the Navy is integrating its Special Operations. The Marines, obviously you work side by side with the Army's equivalent and other Special Ops, to what extent that integration is working.

Secretary Johnson. Our SEALs are very much a part of the Special Operations and are very integral to everything they do. And Admiral Clark might say something. The Marines have been working side by side, as you talk, not quite as integrative, but yet very, very supportive, and working many things that Special Ops would normally be doing. We are doing the work in Georgia, some training commitment that the Special Ops signed up to do, and the Marines said we can do that for you and allow you to do other things.

Mr. Frelinghuysen. I asked the question because obviously each service has budget allocations. This involves advanced training, special equipment, the whole issue of inoperability. We like to think on this dais that the services are working close together. Can you reassure us that is occurring?

Admiral Clark. I can assure you that the Special Forces across the whole element, Congressman, it is working. As the Secretary said, we have different layers. We categorize our SEALs in different categories. But I have a group of them that are assigned full time to this Special Operations Command, and they are working day in and day out and assigned to the same units with the Army folks and the Air Force Special Operations Forces. Then I have Special Operations Forces that are embarked in my own platforms and they work hand in glove with the Marine Corps in our operations at sea and with our own forces. And so there is great integration and jointness in our Special Operations structure.

Mr. Frelinghuysen. So there is jointness between-- obviously, there is jointness between the Navy and the Marines, but is there jointness with the Army?

Admiral Clark. Yes, sir.

Mr. Frelinghuysen. There is.

Admiral Clark. Without confirming or denying what Special Forces might be doing or not at all.

Mr. Frelinghuysen. Whatever they are doing is remarkable.

Admiral Clark. I assure you--they are integrated.

Mr. Frelinghuysen. It is dangerous, and we salute them.

Admiral Clark. Thank you.

ANTIMINE WARFARE

Mr. Frelinghuysen. Relative to floating, tethered, and buried mines, the whole issue of the challenge of what we do to eliminate the possibility of our ships being blown up, what are we doing in terms of technology to promote more antimine warfare?

Admiral Clark. The biggest thing, Congressman, is this. We made a commitment a few years ago to develop organic capability so that we would not have to have one-of-a-kind kind of mission ships doing mining warfare. And they were small and slow and hard sometimes to get to the point of action. We home-ported some, moved some minesweepers that we owned into the Indian Ocean area sometime back, and we have augmented those forces for this contingency.

And then the next thing is that our fiscal year 2004 budget brings forward the Littoral Combat Ship. And it is this Chief's belief that our future enemies are going to come after us with asymmetric means, and mine warfare is one of them. And as this new ship, designed to dominate the battlespace in the near land area, one of the three principal missions of this ship is going to be mine warfare. And as I said in my opening statement, designed from the keel up, from the beginning, to operate with unmanned vehicles. So what is happening? Unmanned, underwater search-and-destroy vehicles, and unmanned aviation assets, and all optimized for this particular warfare area. That is where LCS is going now, one of the three principal warfare missions to accomplish in the near land area.

Mr. Frelinghuysen. Thank you very much.

Thank you, Mr. Chairman.

Mr. Lewis. Thank you, Mr. Frelinghuysen.

I was going to kid my next friend who is--but this is not a day for kidding--one of the more knowledgeable members of the Committee. He too is going to have us keep you here only a brief time, Mr. Dicks.

V-22 UPDATE

Mr. Dicks. Thank you, Mr. Chairman. And we want to compliment both you and the Secretary for your leadership and the good work that is being done by the sailors and Marines out there at the point of the spear.

Chairman, I had a chance to be out there and see the forces in the field, and I was very impressed with their readiness and their willingness to do this job, and we all should be proud of them.

Just a couple quick questions. For the Commandant, give us an update on the V-22. This has been a troubled program, but a program that we have stayed with because we know of its importance to the Marine Corps. Can you give us where we are?

General Hagee. Yes, sir, I can. As you know, this is not a time-driven program, this is an event-driven program, and we are doing very well on the testing. Right now we are about 80 to 85 complete on the high rate of descent testing. And everything that we have experienced in the air was predicted by the model. So, we feel very good about our models. And in fact, we have confirmed that tilt rotor aircraft can come out of this phenomena faster than a normal helicopter, because all you do is you push forward and you fly out of it.

We are about 80 percent complete with the low speed maneuverability testing, and that also is going very well. As I am sure you know, sir, we landed a couple of tilt rotor aircraft on board amphibians back in January. Proved no problem whatsoever. So from our part, sir, the testing is going very

well, and we are very confident in the aircraft.

FUNDING REQUIREMENTS FOR SSGN PROGRAM

Mr. Dicks. Good. Admiral Clark, on the SSGN program, our Committee staff has been concerned about whether we have enough funding in the program. As I understand it, it is around \$4 billion for the entire program. How do you feel about it? I know you just had this giant shadow exercise. How is this thing going?

Admiral Clark. Well, the program is progressing smartly. There is additional funding in the fiscal year 2004 submit to move forward with two additional conversions. This is one of those conversions that ties back to the question on SOF and also deals with the very things that we are facing, as we speak, in operations in the Indian Ocean and the Arabian Gulf and the eastern Mediterranean. This submarine is going to--this conversion and transformation is going to give us extraordinary capability with 150-plus TLAMs. But the real benefit here is the volume of this platform and the ability to exploit future underwater vehicles and forces. And I am convinced that the SOF part of this is--you know, 10 years from now, we are going to be looking back at this, talking about how glad we are that we made this move that allowed us to exploit the independence of the sea and to bring the kind of capability with Special Forces that enables us to deal with the kind of things that we are going to face in the global war on terrorism. This budget has the funding in it to progress down the line to the conversion to convert forward submarines.

NAVY PARTICIPATION IN MISSILE DEFENSE

Mr. Dicks. Let me ask one final thing. On the question about the Navy being involved in missile defense, I think this is a good idea, especially with this Korean situation unfolding. It would be incredibly good if we had a capability to deal with a Korean ballistic missile, you know, from a naval ship. Obviously, one in the vicinity could make a big difference, especially since we don't have the land-based missile--defense missile in place yet, and there is some question about how good it is going to be once it is in place.

Can you give us an update on where we are on this and what your strategy is?

Admiral Clark. Absolutely. And I thank you for asking the question. In my written testimony, I talk about this, Congressman Dicks, at some length. And I talk also in the new vision for the future, Sea Shield is our ability to project defense over the horizon. You know, over the course of history, you look back 30-plus years, when I came in the Navy, we primarily defended ourselves. And then over time we have stretched our combat reach. We are talking now about dramatic revolutionary kinds of changes in our ability to project defense, not just for our forces but for the coalition and for the other members of the joint structure. So I am convinced that this is one of the most important capabilities that we are looking at in this early part of the 21st century.

We have had an incredibly successful year in testing--not

in wishing--in testing, with six successes out of six tests that the results are accelerating us down this ramp.

Now, the guidance that I have out to our Navy is we are going to field this capability by September of fiscal year 2004. Obviously, we are not going to do it without the support of the Congress. But here is what I did. This is under the purview and the development of the Missile Defense Agency. They were going to build a test ship. It was going to cost a billion-plus. I went forward and said, this is so important I will give you the Lake Erie right now. You can have it full time, make it your test ship. The successes of this we have, does this fit your plan? The Director of the Missile Defense Agency was elated with this approach; saves the Nation a billion bucks plus, a billion-and-a-half really, and moves us down toward the development of this capability.

So that is where we are going. They are going to develop the missiles to fulfill the interim capability at the end of fiscal year 2004.

Mr. Dicks. What missile are you going to use? Is it a standard missile?

Admiral Clark. Yes. It is part of the standard family. And this budget also includes some of those. These are right now missiles that are being hand-built, because they are prototypes, and we will have to move to a production line capability. But we can put enough missiles out by the end of fiscal year 2004 to start this interim capability.

Mr. Dicks. Will it have a boost phase capability?

Admiral Clark. Yes, it is my belief that it will.

Mr. Dicks. Thank you.

Thank you, Mr. Chairman.

Mr. Lewis. Thank you very much, Mr. Dicks.

Mr. Dicks. In the spirit of cooperation.

Mr. Lewis. Everybody is in this together this morning, and I am pleased with that.

Mr. Nethercutt.

PLAN FOR PENGUIN MISSILE

Mr. Nethercutt. Thank you, Mr. Chairman. Gentlemen, welcome. Thanks for being here and thanks for your great service.

I want to talk to you about the decommissioning of the Penguin missile. My understanding is there is a decision to decommission this missile, a stand-off missile, by April 1. The cost savings, I am informed, are about \$500,000 in consideration of putting Hellfires on these helicopters for launch, and we spent, I am informed, about \$200 million dollars on the Penguin.

A couple weeks ago I sent a letter asking--or sought information about the decommissioning decision and why. And given the fact that we are looking at a stand-off capability for helicopters with the Penguin--I think the range is about 25 miles--and a big payload versus the Hellfire, which is about 4 1/2 miles and a smaller payload, why is this happening? Has it been fully thought through? And finally, I would just ask if you would have a chance to come brief me on it, or the Subcommittee, and give us a sense of why, and hold off on this

decision on April 1 until at least we are satisfied that this is the right thing.

Secretary Johnson. We are making some very difficult decisions. I will let the Admiral talk about some very specific ones. But we are going back and looking at all of our weapons systems and see which ones, particular legacy ones, that we can move forward without it. Once we take a weapons system out of the inventory, the cost recovery is phenomenal.

Admiral Clark. I will have to get the exact details for you, Congressman, but I will tell you this. And I talked about this last year in some detail. In order for me to get the resources to move to the future, I was going to go after some programs, and so that we could invest our resources in a Navy that created the 21st century Navy.

He mentioned some tough choices. We have this program, this submit recommends the termination of over 50 programs. It also recommends the decommissioning of a number of ships. And some people, you know, reasonable people will have a discussion about whether that is the right thing to do. We fundamentally made the decision that we were not going to pursue programs that delivered us redundant capability and that we would reach for the best capability that we could get.

I can't tell you the time line on Penguin. I don't know the dollars, I don't have them here. I am sorry, I don't have all of those 50 programs here. But we will come up and brief you. We absolutely want to convince the Congress that we are thinking about the threat correctly and that we are making the right kind of judgments and decisions.

When we talk about the ships that I am addressing, one of them was the class leader that I commanded. So when we talk about decommissioning, this gets real personal for me. But I absolutely believe that it is the right thing to do. And so I would like to take the details of that question for the record, and we will absolutely have people come up and brief you on the specifics.

Mr. Nethercutt. I would be grateful.

[Clerk's note.--The Department did not provide a response for the record, but did provide a briefing to Congressman Nethercutt.]

VIRGINIA CLASS SUBMARINE--COST ISSUES

Mr. Nethercutt. And just a question for the record, my last question would be, what is the status of the Virginia class submarine, where I understand it is facing some significant cost growth problems?

Mr. Lewis. We have asked that.

Mr. Nethercutt. Okay. Sir, I will look forward to your answer. Thank you.

JOINT STRIKE FIGHTER--PROGRAM ISSUES

Mr. Lewis. Gentlemen, we have the addition of one more member, and the bells are about to go off. I promised you, we are going to let you free to do much more important work, to do here shortly.

As Mr. Moran gets his collection together, let me just ask

you, if you would, to discuss with us that which has been in the news a lot lately. The Joint Strike Fighter and the weight question which could impact that asset's capabilities, and in terms of flight patterns, you and I have talked about this a bit. Would you respond to that subject area?

Admiral Clark. Well, you know, we are in development, and so development decisions and trade-offs will be made. I don't know the specifics of the--I have seen articles in the paper. That information hasn't come up the chain to me yet. But let me say this about Joint Strike Fighter. Privately, I have talked to you about what I learned in Afghanistan: thousand-mile sorties, five times to the tanker. And my new favorite word is not just ``credible'' combat power, but ``persistent'' combat power. That airplane would have gone all the way in and come all the way out without ever going to the tanker.

The missions that I am going to be flying in this operation, I can go all the way in and come all the way out without ever going to the tanker. I want that kind of combat reach. This is a significant advance in warfighting capability. To me, that is what it is about.

We are in a research and development program. You are going to have issues come up in that process. We have committed in the fiscal year 2004 budget to this program and the Navy line shows that we want this airplane.

Mr. Lewis. And, frankly, that is exactly what I was looking for. Your commitment to Sea Power 21 and the LCS, extending the power of the Navy is a very important piece of that as well. And I think it is important that you know that we want to see you continue on that horizon that leads to the kind of change that will allow us to continue to lead the world.

I must say another thing before I turn to Mr. Moran. I am very, very appreciative of straightforward answers that say, look, friends, we are in this together, we only got so much money, this program ain't going to work, and therefore we have made a decision. For right or wrong, we have made a decision we are not going to spend money in that direction.

That is a lot better than hedging around the edges, especially when Members' districts are involved. I know you. You have both the good sense and the guts to sit down with somebody eyeball to eyeball. If we had a lot more of that around here, we wouldn't be, piece by piece, extending programs that should have been terminated a long time ago.

The bells have rung, so we are getting on the edge of the time we spend here. Mr. Moran, we are attempting to----

Admiral Clark. May I have 10 more seconds?

Mr. Lewis. Of course.

Admiral Clark. I want combat reach. I want the availability that comes with it, plus 90 percent. That will make me so much more combat capable. That will affect the investment for the whole Nation. That is the way to do this and do it right.

General Hagee. Sir, Mr. Chairman.

Mr. Lewis. Sure.

General Hagee. I would like to associate myself with the Chief of Naval Operations' remarks, especially on the Joint Strike Fighter and the need that we have for the STOVL version of that aircraft.

Mr. Lewis. Thank you, gentlemen, very much.

NAVY/MARINE CORPS INTRANET

Mr. Moran. Thank you, Mr. Chairman.

The Admiral, the Secretary, and the General have addressed the front-burner issues in their statement and responses. Let me ask one issue that I don't think has been covered. Are we back on track with the Navy/Marine Corps Intranet? We had a lot of trouble last year with it. Are we all set there, and particularly in terms of the network security that we were concerned about and computer operations?

Secretary Johnson. Sir, we are on track on all the technical things. There are great cultural things that we continue to work. Every time we roll it out, we have the same problems. But the Navy and Marine Corps are totally committed and our people are, and the transformation in our thinking that this brings about is phenomenal.

Mr. Moran. Well, that is terrific. I just hate to see people with two computers on their desk because they just don't want to give up on their--you know, they are used to using their old computer, and it is almost like a security blanket. And I understand we still have an awful lot of that.

Secretary Johnson. We have to get rid of those second computers you talk about, then. The legacy systems have to be replaced, then. There is strong commitment from the top and at all levels, but it is difficult, as you all know, to give up something you have used a long time.

Mr. Moran. But you say we are on track.

Admiral Clark. The reason there are two computers there is because we weren't a modern organization, so we had almost 100,000 different applications that we used across the Navy. We are going to seven. That is where we are going. And so until we can make that integration work, we are going to have a little bit of this in transition. But this is the right thing, and we are headed there.

Mr. Moran. That is consolidation from 100,000 to seven? I think that is----

Admiral Clark. That is where we are going.

Mr. Moran. I am not going to take up any more of your time. Thank you for your service.

Mr. Lewis. Thank you, Mr. Moran.

Mr. Murtha.

Mr. Murtha. Let me say two things. One, I was impressed that General Johnson moved from 423 combat missions to teaching aeronautics at the Academy. I mean, that is versatility. I will tell you that. And I want to say to General Hagee, if General Jones were here, we would have never finished in time.

General Hagee. I am not going there, sir.

EA-6B AIRCRAFT

Mr. Dicks. Just one quick question. Tell us about what you are trying to do with EA-6B.

Admiral Clark. This budget moves EA-6B forward three years. Now, this is another one of these smart business things. The EA-6, last night couldn't have done the operation without it. We have flown the thing hard. The cost of it is has gone up

like this because it is old. We had to do something smart to get rid of airplanes costing us a fortune to fly it but that we can't win in combat without it. The G, the Growler, that will use the common air frame, is going to be a smart buy. It is going to keep us at a level----

Mr. Dicks. F-18?

Admiral Clark. F-18, now, the EA-18G. And it is in this budget. The first one will roll off the line in fiscal year 2006, which is quickly, and we will be deploying them in fiscal year 2009.

Mr. Dicks. And you have got some fixes in here to keep the ones that we have got going?

Admiral Clark. Yes, sir. ICAP-3 and the things to keep the air frames going, it is in the program.

Mr. Dicks. Thank you.

SPECIAL OPERATIONS FORCES

Mr. Lewis. Gentlemen, as we close down this hearing, Mr. Frelinghuysen talked about Special Ops a bit with General Hagee. The Special Ops forces of America for me have always been the Marine Corps. They have been doing that job for a long, long time. I must add to that, though, some of us took a brief trip to Alaska not so long ago, watched these kids jump in the water; we called them SEALs. And I scratched my head and I said, thank goodness they didn't have that when I was a kid, because I would have wanted to do that.

The men and women who make up our forces are the heart of what makes this successful, and you are out there proving it today, and God bless them all. Thank you very much for being here. The Committee is adjourned.

[Clerk's note.--Questions submitted by Mr. Hobson and the answers thereto follow:]

Air Force Institute of Technology

Question. Mr. Secretary, I would like to congratulate your predecessor and the Secretary of the Air Force for concluding the 4 December 2002 Memorandum of Agreement that forms an educational alliance between the Air Force and the Navy. This MOA is an excellent first step in implementing ``jointness'' for military education and I strongly support it. This educational alliance will maintain the Air Force Institute of Technology (AFIT) and the Naval Postgraduate School (NPS) as ``world class'' higher educational institutions; complementing each other; and ensuring high quality, relevant responsive graduate education aligned to defense needs. Thank you.

How critical are the educational programs of AFIT and NPS for meeting the needs of the Navy?

Answer. Naval Postgraduate School (NPS) programs are specifically designed to meet Navy and Department of Defense needs. NPS provides relevant and unique advanced education and research programs essential to increasing the combat effectiveness of U.S. and Allied armed forces and enhancing the security of the United States. While the programs at the Air Force Institute of Technology are designed to meet Air Force needs, in some areas the military focus also aligns with Navy needs.

Question. The MOA commits the two services to filling all seats at AFIT and NPS before sending students to civilian schools. How is Navy

implementing that commitment?

Answer. The Navy uses the Naval Postgraduate School (NPS) as its primary source of graduate education. The Air Force Institute of Technology (AFIT) will be used as a secondary source when it has space available within programs meeting Navy requirements. Civilian institutions will be used when NPS and AFIT do not offer programs meeting necessary education requirements. NPS will coordinate implementation of the MOA with AFIT.

Question. The MOA requires the creation of a joint AFIT/NPS admissions and quota control process to provide for enrollment of students from all services and from the Coast Guard. What steps is the Navy instituting to carry out that requirement?

Answer. While the Navy and Air Force have separate admissions and quota control processes, the Memorandum of Agreement requirement is being addressed in ongoing discussions between the Naval Postgraduate School and the Air Force Institute of Technology.

Question. The MOA requires the Air Force and Navy to review current AFIT and NPS policies and to establish common policies that represent best practices at both schools. What mechanisms has the Navy put in place to accomplish this requirement, and how will you involve the faculty and leadership of the two schools in conducting the necessary review?

Answer. The Naval Postgraduate School and the Air Force Institute of Technology are collaborating on the establishment of common policies.

Question. The MOA requires the Assistant Secretaries of Financial Management for the two services to program the resources needed to launch the alliance and ensure its success. What specific initiatives will be funded in order to launch the alliance and make it successful, over and above those funds needed to sustain the excellence of the ongoing operations of the two schools?

Answer. The Navy continues to research funding requirements to launch the alliance and ensure its success.

Question. The MOA requires the Assistant Secretaries of Financial Management for the two services to program the resources needed to launch the alliance and ensure its success. Is there a dichotomy in that the Navy charges tuition which it keeps to lower operating expenses where the Air Force does not?

Answer. United States Code Title 10 7045(b) authorizes Navy to charge other services the costs of instructing their officers at the Naval Postgraduate School (NPS). This enables NPS to expand course offerings and instructional staff to accommodate other service students. Air Force has no such authority for the Air Force Institute of Technology, which is limited to accepting other service students on a space-available basis.

Question. Oversight of the education alliance is to be carried out by the respective Air Force Board of Visitors and the Navy Board of Advisors. The MOA directs that each school's governing body will interact with each other. What steps has the Air Force taken to interact with the Navy Board of Visitors?

Answer. Air Force Institute of Technology (AFIT) and Air University representatives attended the meeting of the Naval Postgraduate School (NPS) Board of Advisors (BOA) on January 29, 2003. NPS BOA representatives attended the meeting of the AFIT Board of Visitors on March 17, 2003.

Question. What do you think about a Joint Board of Visitors?

Answer. Collaboration between the Naval Postgraduate School and the

Air Force Institute of Technology is essential to the success of the alliance. As the collaboration evolves, the merits of a Joint Board of Visitors can be evaluated.

Iraq

Question. Two weekends ago, I had the privilege of traveling with Congressman Jack Murtha and Congresswoman Nancy Pelosi to Qatar and Kuwait. The purpose of the trip was to review the preparations for possible military action in Iraq. Our kids are all ready, motivated, and a great credit to the United States.

Inevitably, the congressional delegation asked ``what do you need from us?'' The principal responses were Army and Marine oriented since we were seeing troops on the ground. (More bandwidth, special operations troops, and special operations helicopters). However, as the Navy is a full partner in this endeavor, we ask you now ``what does the Navy need from us?''

Answer. The Navy needs the continued support of Congress to fund the programs that will keep the Navy ready to respond to worldwide contingencies. The resources contained in the fiscal year 2004 budget go far in helping both the Navy and the Marine Corps maintain heightened readiness in these uncertain times, provide further investment in transformational programs, and take care of our Sailors, Marines and their families. The road to attaining our shipbuilding and aircraft procurement program goals remains exceptionally challenging. We received all the funding we asked for our initial requirements in the supplemental. If additional funding became available for efforts other than Global War on Terrorism, the Department has provided a memo containing our unfunded Naval programs for which funding could be applied, signed by the CNO and the Commandant on February 27, 2003.

Rotational Force in Europe

Question. General James Jones, Commander of United States Forces in Europe (EUCOM), has discussed the possibility of moving to a United States presence in Europe made up of (1) troops on short term rotations, (2) families left at home in the U.S., and (3) ``lily pad'' compact bases scattered in the New (Eastern) Europe and Africa. Camp Bondsteel would be a model. What is the Navy opinion of this vision?

Answer. It is Navy's position, and that of the working group at EUCOM, that Naval forces are already built within this framework. We are organized to deploy future carrier strike groups and expeditionary strike groups on a short-term rotational basis, away from their families, just as we have always done. The no-families policy applies primarily to combat forces and not to support forces in theater.

The ``lily pad'' term is no longer used in EUCOM's emerging basing models for joint main operating bases (Joint MOBs), joint forward operating bases (Joint FOBs), and joint forward operating locations (Joint FOLs). Naval bases in the U.S. European Command function as Joint MOBs and FOBs. The current structure also provides a strategic bridge for forces flowing through the Suez to points east.

Question. Are all military construction projects in Europe on hold and is it because of this? Or something else?

Answer. No. A single Navy project has been placed on hold pending completion of a review of overseas basing requirements in portions of Europe. That project is a fiscal year 2003, \$14.8 million Combined Dining Facility at Naval Air Station Keflavik, Iceland.

Question. Is there the same situation for military construction projects in Korea?

Answer: No. Navy does not have any military construction projects on hold in Korea.

Joint Strike Fighter Program

Question. Recent press reports have suggested that the Joint Strike Fighter could be up to 20 percent overweight, threatening the Short Take-Off Vertical Landing (STOVL) version of the plane. How much of a problem is this and how is it being addressed?

Answer. The government parametric estimate for the Joint Strike Fighter (JSF) air system weight currently is above the targets the government/contractor team established for this period in the program. The JSF team is aggressively working weight reduction initiatives. Weight reduction, along with closure and maturation of design issues, is addressed daily through a combination of the normal teaming processes and insight from numerous external experts from all Services as Preliminary Design Review (PDR) activities progress. The government and prime contractors fully recognize the need to reduce the design airplane weight through a proper systems engineering process that best accommodates performance requirements, schedule, cost, and acceptable risk. A Blue Ribbon Action Team (BRAT) has been established to reconcile weight projection methodologies and identify detail design impacts by late June. PDR remains open pending the final BRAT results. No delay to the overall schedule is currently projected.

[Clerk's note.--End of questions submitted by Mr. Hobson. Questions submitted by Mr. Cunningham and the answers thereto follow:]

Ship Depot Maintenance

Question. The President's budget request for operations and maintenance depot level ship maintenance contains approximately \$3.5 billion for this activity. That number is similar to the 2003 request. However, on closer analysis, \$400 million for organic depot maintenance was funded in a separate account and \$268 million is scheduled for unallocated overhead. The actual dollars going to repair similar ships is nearly \$700 million less. Why?

Answer. Intermediate ship maintenance funding of approximately \$400 million will be consolidated with ship depot maintenance funding beginning in fiscal year 2004 as a result of Navy's regional maintenance initiative. This total fiscal year 2004 ship maintenance budget supports 96.2% of our notional operations and maintenance ship maintenance requirements. This percentage is slightly higher than the 95.5% funded in the fiscal year 2003 President's Budget. We were able to reduce ship maintenance funding in fiscal year 2004 while budgeting to fund a higher percentage of the requirement for several reasons. The cyclic nature of ship maintenance contributed to a lower requirement in fiscal year 2004; the requirement was reduced as we accelerated the retirement of our oldest, most maintenance-intensive ships; and finally, the reduced requirement directly reflects the benefits provided in the fiscal year 2002 Supplemental Appropriations.

The budgeted fiscal year 2004 unallocated overhead amount is \$268 million, rather than \$368 million. This funding is associated with the overhead that supports non-Pacific Fleet ship work at the two mission

funded Naval shipyards. In the fiscal year 2003 President's Budget, the portion that funded overhead for Atlantic Fleet ship work to be performed at Puget Sound Naval Shipyard was also included in the ship depot maintenance budget line.

Surface Ship Depot Maintenance

Question. Surface ship funding appears to be significantly understated. The Phased Maintenance Availability (PMA) category which funds AOE's and amphibious ships is budgeted at 13 hulls for approximately \$185 million. This compares with an average of 25 hulls and approximately \$370 million in previous years. Using OPNAV planning tools, 21 hulls were scheduled for PMAs at a cost of approximately \$365 million using a 91 percent funding level. Why is there such a significant reduction on a class of ships which are not scheduled for decommissioning in FY2004?

Answer. The Chief of Naval Operations' availability-planning tool is continuously updated as operations, port work loading considerations, and ship material condition assessments dictate modifications to the ship maintenance plan. The number of Phased Maintenance Availabilities (PMAs) budgeted supports the maintenance required at the time of budget development due to the cyclic nature of ship maintenance.

[Clerk's note.--End of questions submitted by Mr. Cunningham. Questions submitted by Mr. Visclosky and the answers thereto follow:]

Man Overboard Identification (MOBI) System

Question. Congratulations on successfully completing the fleet evaluation of the ORCA Man Overboard Identification (MOBI) system. I understand that 100 percent of the reporting ships in the evaluation recommended that the Navy move forward with full fleet installation of this lifesaving system, and that the Navy has made that decision.

When does the Navy intend to begin the installations fleet-wide? How long will it take to outfit the entire fleet?

Answer. We intend to begin installations in December 2003. After completion of the successful fleet evaluation, we incorporated several design changes based on recommendations submitted by the evaluation ships. We are now developing the installation details as part of the Ship Alteration process and preparing the required Integrated Logistic Support documentation, which includes technical manuals, supply support, and planned maintenance requirements. We plan to complete outfitting the entire fleet within three years; however, this will depend on availability of all required funds and ability to schedule ship installations as planned.

Question. Since you have made the decision to install this system fleet-wide, when do you plan to include this program in the Navy Budget?

Answer. Funding for this program has been submitted for consideration as part of our fiscal year 2005 program and budget deliberations. Commander, U.S. Fleet Forces Command has agreed to budget for maintenance requirements after initial installation.

Question. I understand that your installation plan calls for those Sailors with deck operations, those you have determined to be "at risk", are the Sailors who will be provided a MOBI transmitter. Does

it ever happen that any Sailor or Marines who are not defined as ``at risk'' fall from the ship?

Answer. Our plan is to install a Man Overboard Identification (MOBI) transmitter in every MK-1 FloatCoat and inherently buoyant life preserver because anyone working topside is at risk of falling overboard and should be wearing a life preserver. There have been cases, however, where Sailors and Marines who are not defined as ``at risk'' have also fallen overboard. As MOBI product improvements are made, we hope to provide a unit in the future that could be used with the normal shipboard uniform.

[Clerk's note.--End of questions submitted by Mr. Visclosky. Questions submitted by Mr. Lewis and the answers thereto follow:]

Joint Strike Fighter Performance Attributes

Question. The fiscal year 2004 budget request for the Joint Strike Fighter (JSF) is \$4.4 billion. This is the tactical aircraft of the future for the Navy, Marine Corps and Air Force. In addition, foreign partners intend to purchase a large number of the aircraft.

In general terms, what are the attributes of this aircraft that you believe make it worth this large investment--what does it bring to the fight that is significantly different than aircraft of today?

Answer. The sea based Joint Strike Fighter (JSF) will complement the F/A-18E/F and will provide the Navy and Marine Corps a first day of the war, long range, self-escort, survivable, stealthy strike fighter that is capable of operating and winning against surface-to-air and air-to-air threats in 2010 and beyond. The JSF will bring a robust, fully integrated onboard sensor and precision navigation suite and precision munitions that will enable true battle space dominance, as both a sensor and a strike platform. In addition, with F/A-18 like performance qualities and stealthy characteristics, the JSF too will be able to fight and win in both the beyond, and within-visual-range air-to-air arenas.

Question. What is the current estimate of the date for Initial Operational Capability?

Answer. The Joint Strike Fighter Marine Corps Short Take Off Vertical Landing version is currently projected to reach Initial Operational Capability (IOC) in calendar year 2010. The Navy carrier version is scheduled to reach IOC in calendar year 2012.

Joint Strike Fighter Cost Estimates

Question. Understanding that numbers will change over time, what is the total current estimate for development of the JSF--previous years through 2003 and then 2004 to completion?

Answer. As reflected in the December 2002 Selected Acquisition Report, the Joint Strike Fighter current total development estimate is \$37.3 billion comprised as follows: \$9.8 billion, fiscal years 1994-2003, and \$27.5 billion, fiscal years 2004-completion.

Question. What is the current estimate of the total number of JSF that will be acquired?

Answer. The Department of the Navy's current Joint Strike Fighter procurement objective is 680 aircraft.

Question. Taking into account the research and development and procurement funds, what is the current estimate of the average cost per

aircraft?

Answer. The December 2002 Selected Acquisition Report reflects a Program Acquisition Unit Cost (PAUC) of \$65.7 million.

Question. What drives changes to this average cost per aircraft--change in the total buy, increased research and development?

Answer. The December 2002 Selected Acquisition Report (SAR) reflects Joint Strike Fighter (JSF) Program Acquisition Unit Cost (PAUC) increase of \$3.8 million (\$BY02) from the December 2001 SAR. This change was driven by reduction of Department of Navy planned procurement quantity from 1089 to 680 aircraft in accordance with the Navy/Marine Corps Tactical Aviation Integration Plan; increased Research, Development, Test and Evaluation (RDT&E) for added scope to accommodate JSF international partners, and a revised estimate for General Electric F136 development completion.

Joint Strike Fighter Software Development and Testing

Question. The Air Force has had a most difficult time in developing and testing the software for the F-22. Have you applied the software development and testing ``lessons learned'' from the F-22 to the JSF program and if so, what are you doing to ensure the same problems do not affect this aircraft?

Answer. The Joint Strike Fighter (JSF) program has benefited greatly from the F/A-22 development and test activity and has worked in concert with the F/A-22 to ensure technical, programmatic, and test execution lessons learned are being shared between the two programs. JSF and F/A-22 share the same prime contractor and many of the same avionics suppliers (radar communications/navigation, electronic warfare, etc.). The sharing of lessons learned with F/A-22 and other relevant aircraft programs (e.g. F/A-18 E/F, F-16, Eurofighter, etc.) along with the substantial risk reduction activities completed during the JSF Concept Development Phase, positions the JSF program to leverage those activities and reduce the risk of its avionics development program. Some of the specific lessons learned implemented in JSF planning include the following: preplanning a multi-block avionics program during the development phase to deliver integrated operational capability in smaller and more testable avionics blocks; using an open architecture approach to minimize the cost, time, and regression testing required to modify specific hardware and software elements during System Development and Demonstration (SDD)/production; and implementing a technology refresh program during SDD to capitalize on the ever increasing capabilities of processing power while reducing the costs to replace diminishing manufacturing sources during development and production by targeting technology enhancements to improve the affordability, producibility, or reliability of specific products.

Question. What is the next major milestone in the JSF development and testing program and when will that occur?

Answer. The next major milestone will be the Pratt and Whitney propulsion Critical Design Review in May 2003, leading to Pratt and Whitney's first System Development and Demonstration engine operating in the test cell in September 2003.

Joint Strike Fighter Interchangeable Engine Program

Question. For the past nine years, Congress has expressed its strong support for the Interchangeable Engine Program for the JSF in an

attempt to ensure that two engines--the Pratt-Whitney and the General Electric engines--are available for a competition at the earliest practical time.

The Committee understands that a recent OMB directed inflation adjustment of \$38 million was not spread across the entire JSF program, and was instead levied against the General Electric engine portion of the program which could potentially delay the program by two years. Is this accurate?

Answer. None of the fiscal year 2003 inflation adjustment of \$38 million was applied to the General Electric F136 program. Inflation reductions allocated to planned General Electric F136 effort in fiscal year 2004 and out will likely result in an approximate two-year delay to the General Electric F136 engine schedule.

Question. What is the rationale for (1) the reduction and (2) for the decision to apply the reduction to only one piece of the program?

Answer: The Office of Management and Budget issued revised inflation indices in January 2003, which resulted in reductions to planned Joint Strike Fighter (JSF) funding in fiscal year 2003 and out. This required the JSF Program Office to reevaluate funding allocations within the program. To hold schedule to first flight, production start and fielding, and meet the Services' Initial Operational Capability dates, funding was first applied to the Lockheed Martin Air System and the Pratt-Whitney propulsion contracts. The remainder of the funding was then allocated to the General Electric F136 engine contract and the Government support portions of the program. Reduction of planned General Electric funding in fiscal year 2004 and out, with consequent schedule delay, was a difficult decision essential to keeping this very critical JSF development effort on schedule.

Question. Do you believe the application of this reduction will cause a delay in a potential engine competition?

Answer: The Joint Strike Fighter (JSF) Program office is analyzing ways to limit the impacts of the General Electric F136 funding reductions in fiscal year 2004 and out, but the production engine competition likely will be delayed. The Department will reevaluate General Electric F136 funding and schedule as part of the fiscal year 2005 budget development process.

Question. In fiscal year 2003, the appropriations conferences agreed to a \$30 million increase for the interchangeable engine problem. To what extent does this OMB directed reduction eliminate that increase?

Answer. None. The inflation reduction was not applied to fiscal year 2003 General Electric F136 planned effort.

Joint Strike Fighter Design Issues of Concern

Question. A recent news article indicates that JSF's prime contractor, Lockheed Martin, discovered in February that the JSF could be up to 20 percent overweight. Specifically, how does this ``discovery'' affect the program?

Answer. The government parametric estimate for the Joint Strike Fighter (JSF) Air System weight currently is above the targets the government/contractor team established for this period in the program. The JSF team is aggressively working weight reduction initiatives. Weight reduction, along with closure and maturation of design issues, is addressed daily through a combination of the normal teaming processes and insight from numerous external experts from all Services as Preliminary Design Review (PDR) activities progress. The government

and prime contractors fully recognize the need to reduce the design airplane weight through a proper systems engineering process that best accommodates performance requirements, schedule, cost, and acceptable risk. A Blue Ribbon Action Team (BRAT) has been established to reconcile weight projection methodologies and identify detail design impacts by late June 2003. PDR remains open pending the final BRAT results. No delay to the overall schedule is currently projected.

Question. While it is not unusual for aircraft development programs to have issues with weight, there is a concern that something in the realm of an additional 20 percent, could threaten schedules and budgets. Are you concerned about this potential?

Answer. Department leadership is closely monitoring weight status and progress toward addressing related issues. We will have more insight into this issue when the Blue Ribbon Action Team reports out in June 2003.

Question. Mr. Secretary, to the extent that fixing this problem causes the JSF schedule to slip, what back up plan exists for the Navy and Marine Corps?

Answer. A slip in the Joint Strike Fighter (JSF) schedule would incur a requirement for the Department of the Navy to fund additional Center Barrel Replacements for both Navy and Marine Corps F/A-18C/D aircraft. Extending the service life of the F/A-18C/D fleet will provide short-term relief in bridging TacAir force structure requirements. The F/A-18E/F production line will remain open through calendar year 2013 (last procurement 2011, deliver 2013), allowing the procurement of additional F/A-18E/F's as an option to bridge force structure gaps in the event of JSF schedule slip. The recently completed AV-8B re-manufacture program provides the USMC some flexibility in their tactical aviation requirements if there are delays in the JSF delivery schedule.

Question. The news article mentions this is potentially a problem with the design of the aircraft. Is this a design problem and if so, what are the options for getting it corrected?

Answer. The Blue Ribbon Action Team is currently assessing the weight issue relative to design. Details regarding this issue will be better understood when the assessment completes in June 2003.

Joint Strike Fighter Technological Challenge

Question. Have you considered, and does it make sense, to maybe move the other variants of the JSF forward to help replace aging aircraft sooner and move the STOVL variant to a later point in the schedule to provide additional time for development?

Answer. At this point, 18 months into execution of the System Development and Demonstration contracts, there is still no delay in the Short Takeoff and Vertical Landing (STOVL) variant development. Therefore, reordering of the variants at this time is not practical or affordable. It would require a major program re-structure with attendant significant schedule delays and cost increases.

V-22 Aircraft

Question. The Director, Operational Test and Evaluation fiscal year 2002 Annual Report indicates that the milestone III decision on the V-22 scheduled for November 2000 was delayed due to an independent evaluation conducted by DOT&E. The milestone III decision was then delayed indefinitely after a December 2000 crash.

The aircraft returned to flight in May 2002, and the number of aircraft engaged in flight-testing increased to three by December 2002. The fiscal year 2004 budget request contains \$1.3 billion for nine Low Rate Initial Production (LRIP) aircraft. Of this amount, \$872.2 million is for procurement, including \$39.1 million for advance procurement, and \$441.1 million is for research and development.

Update the Committee on the progress of the V-22 program. What is the status of flight-testing for the V-22?

Answer. The V-22 Program is currently mandated to continue production at the minimum sustaining rate until the Secretary of Defense certifies this aircraft meets the requirements outlined in Section 123 of the FY 2002 National Defense Authorization Act. The program continues to ensure a methodical and event driven test flight program to validate all engineering and software changes. Program reviews have been comprehensive; the organizational, technical and programmatic issues are well addressed. The plan represents a rational approach to flight testing.

The V-22 has flown over 350 flight hours (as of April 2003) since its return to flight May 29, 2002.

- 3 Engineering and Manufacturing Development (EMD) aircraft have returned to flight.

- 3 Low Rate Initial Production (LRIP) aircraft have been modified and delivered early or on time.

- Aircraft 9 Benefield Anechoic Facility phase III testing accomplished 40 percent more test points than planned, resulting in flight test savings.

- Aircraft 7 is progressing well through multi-mode radar testing to include flat rolling and isolated peak terrain following.

- Simultaneous deployments to USS IWO JIMA (shipboard suitability) and Ft Bragg, NC (parachute loads testing).

Since its return to flight, the V-22 program has had no hydraulic failures or software anomalies attributed to earlier mishaps.

Question. The DOT&E fiscal year 2002 Annual Report states that the first order of business for V-22 testing is successful completion of high rate of descent (HROD) tests. Has the V-22 successfully completed this aspect of flight-testing?

Answer. The High Rate of Descent (HROD) flight test program is producing significant results to include:

- Recognition and definition of the flight boundary for Vortex Ring State (VRS) onset.

- Confirmation of the recovery technique.

- Warning system design ready for in-flight evaluation.

- Recognition and demonstration of V-22's superior VRS safety margin.

Phase I of HROD flight testing is scheduled to be completed May 2003 to support operational evaluation (OPEVAL).

Question. What are the key issues that need to be resolved, and the capabilities proven, before you place Marines in the back of a V-22 on a regular basis?

Answer. The V-22 program office has established a comprehensive and rigorous ``event driven'' flight test program. When all developmental and operational test requirements are complete, in accordance with all prescribed directives, Marines will be placed in the back on a regular basis.

Question. Will the V-22's suitability for shipboard operations be

adequately tested in the next phase of the program?

Answer. The V-22 successfully met shipboard suitability requirements in the initial operational evaluation (OPEVAL) after a final evaluation of the Blade Fold Wing Stow system. The self-taxi capability enhanced the shipboard operational use of the aircraft. The recent correction of hydraulic and software items, which includes the redesign of the nacelle, and the shipboard suitability development testing underway will support a successful OPEVAL.

A-12 Aircraft Settlement

Question. After an original ruling against the government for wrongful termination of the A-12 stealth attack fighter development program in 1991, an appellate court found the program contractors liable for up to \$2 billion in costs incurred by the government due to non-performance on the A-12 development contract.

There have been sporadic attempts by the Department of the Navy to reach some sort of in-kind settlement whereby the contractors would provide up to \$2 billion worth of goods and cost savings initiatives to the Defense Department. The Justice Department has objected to this approach and insists on an actual payment of \$2 billion to the Treasury. Absent a settlement the contractors plan to appeal the ruling to the Supreme Court.

What is the status of attempts to settle the A-12 suit? What set of goods and services are being offered by the contractor in its attempt to settle the suit? What is the present position of the Justice Department and OMB with regard to actually attempting to collect \$2 billion in cash as per the appellate court ruling?

Answer. The Department of Defense and the Department of Justice have been engaged in settlement discussions with the companies on a number of occasions over the past several years. We are maintaining a dialogue with the contractors and, although all parties are still reviewing the recent decision of the Court of Appeals for the Federal Circuit, we continue to exchange positions and proposals. The parties have discussed different ways of constructing a settlement, including a variety of products and services, as well as cash. The difficulty is in reaching a complete settlement that everyone agrees is reasonable and equitable under the circumstances. The Department of Justice is participating actively in these efforts with DoD. There is no present collection effort.

Navy and Marine Corps TACAIR Integration

Question. The Navy and Marine Corps have recently announced the integration of their respective tactical air (TACAIR) forces. While most observers have focused on the impact this integration will have on overall aircraft purchases, it is more than that--it is a major shift in Naval Aviation philosophy.

Please provide a brief description of the elements of TACAIR Integration and the major elements of difference from the previous tactical air forces.

Answer. The TACAIR Integration plan changes from the fiscal year 2003 program of record: total procurement objective, numbers of active and reserve squadrons, Primary Aircraft Authorized (PAA) in tactical squadrons and the organizational assignment of squadrons.

--Total Department of the Navy (DoN) procurement objective:
reduced from 548 F/A-18E/F and 1,089 JSF, totaling 1,637

strike-fighter aircraft to 460 F/A-18E/F and 680 JSF, totaling 1,140 strike-fighter.

--Numbers of active squadrons: decommission 3 active USN F/A-18 squadrons, 1 Reserve USN & 1 Reserve USMC F/A-18 squadron. Total DoN strike-fighter squadrons reduced from 64 to 59.

Note--2 active USN squadrons decommission outside FYDP.

--PAA reduction: 12 USN F/A-18C squadrons will reduce PAA from 12 to 10 beginning in fiscal year 2004. USMC F/A-18 squadrons will reduce PAA from 12 to 10 as they integrate into Carrier Air Wings (4 in fiscal year 2004, 4 more during the FYDP). Exceptions are those USN F/A-18 squadrons identified for transition to F/A-18E/F or squadrons identified for integration into the USMC's Unit Deployment Plan (UDP) rotation.

--Organizational assignment: 6 additional USMC F/A-18 squadrons integrated into Carrier Air Wings, 3 USN F/A-18 squadrons integrate into USMC's UDP rotation.

Note: Final 2 USMC squadrons integrate into Carrier Air Wings outside FYDP.

Question. In what specific ways has this change affected the way the Navy and Marine Corps train and work together?

Answer. Navy and Marine Corps TACAIR units have a long history of integrated operations and training. TACAIR integration will increase the degree of integration by bringing an additional six USMC squadrons into the Carrier Air Wing structure and three USN squadrons into the Unit Deployment Plan rotation. Upon assignment, integrated squadrons' operational command chain will change to the Carrier Air Wing or Marine Air Group and the individual squadrons inter-deployment training cycle will be conducted in accordance with the respective operational requirements. Additionally, a USMC O-6 has already been selected for ultimate assignment to command a Carrier Air Wing.

Question. This integration will also allow the Department of the Navy to reduce the number of primary authorized aircraft by 47 during fiscal year 2004. What is the long-term impact of TACAIR Integration on authorized aircraft?

Answer. TACAIR Integration will reduce the number of primary aircraft authorized (PAA) by 56 (vice 47) in fiscal year 2004. Twelve USN squadrons and four USMC squadrons 2 aircraft + two reserve squadron decommissions 12 aircraft = total of 56 aircraft.

Long-term impact of the plan on authorized aircraft is a reduction of 128 PAA. Thirty-four squadrons reduce PAA and five squadrons are decommissioned. The improvement in capability and reliability of tomorrow's strike-fighters enables the PAA reduction while retaining significant increases in overall capability. However, the most significant portion of the reduction in total procurement comes from reduction in procurement overhead rather than PAA. Overhead rates were recalculated by matching procurement attrition rates with historical rates and capturing efficiencies of improved reliability, maintainability and capability rates of new strike-fighters, basing efficiencies, training requirement reduction and improvements in simulator-based training.

AV-8B Harrier Jump-Jet

Question. Earlier this year the Marine Corps' AV-8B attack jet program was the subject of an investigative report by the Los Angeles Times. The four part series of articles detailed the Harrier's history

as one of the most accident-prone airplanes in the naval aviation fleet.

The report alleged that recurrent failures of the engine, wing flaps, and ejection system coupled with a lack of spare parts and adequate flying time have lead to fatalities that could have been avoided.

What is the Department of the Navy's official response to the issues raised by the LA Times article?

Answer. The problems discussed in the recent LA Time's articles list four primary material problems causing AV-8B mishaps: Flaps Controller, Engine, Ejection System, and Nose Wheel Steering.

--The Flaps Controller was replaced with a new Digital Flaps Controller in the fourth quarter of fiscal year 2001. Since installation, there have been no flap related mishaps.

--The engine program underwent an extensive Engine Life Management Plan (ELMP) with increased funding to further test the F402 Engine. Since ELMP was instituted in 2000, there have been no engine related mishaps.

--The Ejection System in the AV-8B is currently being upgraded to address all ejection related mishaps including: 4 line release, Electronic Airspeed/Altitude Sensor, upgraded Helmet and Visor and Parachute Over Inflation Controller (estimated completion is fiscal year 2005). Since the upgrades have begun, there have been no ejection related deaths.

--The Nose Wheel Steering (NWS) system was redesigned and is being incorporated into all fleet aircraft (estimated completion is fiscal year 2005). Since the redesign of the NWS system there have been no NWS related mishaps.

Following the AV-8B groundings in calendar year 2000, all Harrier aviation related trends are positive. Mission Readiness, Safety, Pilot Flight Time, and Fleet deployments have all increased. Pilot morale is high, as is their confidence in the aircraft. The aircraft has been performing superbly as indicated by its success while participating in OPERATION IRAQI FREEDOM and OPERATION ENDURING FREEDOM, and other deployments around the world.

Question. What has been the current safety record of the AV-8B in terms of significant mishaps per flight hour and how does this metric compare to other aircraft in the Navy/Marine Corps fleet?

Answer. The ten-year average mishap rate for the AV-8B is 9.73 mishaps per 100,000 flight hours compared to 6.44 for the F-14 and 2.80 for the F-18. Since the engine life management plan was implemented in 2000, the yearly mishap rate for the AV-8B has continued to decrease below its ten-year average.

2003 Mishap rate per 100,000 flight hours for:

AV-8B.....	4.86
F-14.....	*12.11
F-18.....	*5.95
EA-6B.....	4.90
S-3.....	4.42

*Does not include Operation IRAQI FREEDOM combat losses.

Question. Is the AV-8B program adequately financed in the current Future Years Defense Program to ensure that its mishap rates are no higher than the average for the rest of the fleet?

Answer. The AV-8B program is adequately funded. The single issue to

address is the engine life management plan. This issue has been included on the Navy's fiscal year 2004 Unfunded Program List (priority number 20) and it is also moving forward as part of the fiscal year 2005 President's Budget development process. If this funding were to be made available, it would continue the Accelerated Simulated Mission Test (ASMET) series of tests to improve engine readiness, availability, and safety. The three-year trend of the AV-8B is clearly comparable to other tactical aircraft (TACAIR) legacy platforms such as the F-14, F/A-18 and EA-6B, and is sustainable even under the more demanding circumstance of single engine flight in a Short Takeoff and Vertical Landing environment. The relatively small number of aircraft and flight hours of the AV-8B when compared to F/A-18 may, in the future, result in some larger variations as compared to the TACAIR mean. That is the statistical reality of comparing different population sizes, and should be viewed more broadly over several years.

Unmanned Combat Aerial Vehicle (UCAV)

Question. General Jumper, the Air Force Chief of Staff, was recently quoted as saying that the investment in unmanned strike aircraft is worth the cost only if it can deliver significant additional warfighting capability. That, in general, pursuing this technology for the sole purpose of getting a man out the cockpit is not worth the cost--the investment pays off if the aircraft can deliver significant additional capability.

Given that the Services often argue that the single greatest advantage the United States has over its adversaries, is the talent of our men and women in uniform, General Jumper's comments cannot be discounted.

Admiral Clark and General Hagee, what are your views on this subject?

Navy answer. As with any system, the cost effectiveness of Unmanned Aerial Vehicles (UAVs) should be determined by comparison of capability delivered versus cost. Taking humans out of the cockpit is not an end unto itself, but it does allow UAVs to offer increased endurance, more effective signature control, and the potential for reduced costs. In addition, inherent risk to aircrew results in significant limitation of employment options in some missions--taking the human out of the cockpit in these situations greatly expands available alternatives in the application of force. The Navy concurs that the single greatest advantage that the United States has over its adversaries is the talent of our men and women in uniform. However, in some cases the best place for those men and women to contribute those talents is outside of a cockpit.

Marine Corps answer. Should the Marine Corps choose to initiate an acquisition strategy for an unmanned combat aerial vehicle sometime in the future, the missions and capabilities of this technology would serve as a force multiplier vice replacing aviators.

Question. What role will the Unmanned Combat Aerial Vehicle have in the Navy and Marine Corps of the future and how is that reflected in your SEAPOWER 21 and Marine Corps Strategy 21 documents?

Navy answer. The Unmanned Combat Aerial Vehicle (UCAV) will play a critical role in providing persistent, penetrating surveillance and reconnaissance capability, and in addressing time critical targets through the combination of lethality and persistence. The UCAV is envisioned to contribute to all aspects of Sea Power 21--the strategy specifically states that the Sea Services will ``use unmanned

platforms: air, land, sea, and undersea for combat and reconnaissance.''

Marine Corps answer. The UCAV is not specifically mentioned in SeaPower 21 or Marine Corps Strategy 21. However, UCAV would be used primarily as a Suppression of Enemy Air Defense (SEAD) asset in an environment populated with numerous and highly capable surface to air missiles. A UCAV would also be used as a deep strike asset well beyond friendly lines.

Question. The fiscal year 2004 request for Unmanned Combat Aerial Vehicles (UCAVs) is \$275 million. Of this amount, how much is for the Navy's variant of the UCAV?

Answer. A total of \$123 million (including \$5 million for the Joint Program Office) was requested in fiscal year 2004 for the Navy's Unmanned Combat Aerial Vehicles (UCAV) demonstration effort. In addition, DARPA is expected to contribute \$13 million to the Navy's UCAV demonstration effort in fiscal year 2004.

Question. How much is included in the Navy's 2004 request for the Joint Program Office?

Answer. \$5 million is requested for the Navy's share of Joint Program Office efforts.

Question. What is the current estimate of the production unit cost of the Navy UCAV?

Answer. The Navy Unmanned Combat Air Vehicle effort is insufficiently mature to justify a production unit cost estimate. Further demonstration of technical feasibility and final validated requirements are required before an analytically based cost estimate can be provided.

Tactical UAV Fire Scout

Question. In fiscal year 2003, the Navy announced that it would complete the Engineering, Manufacturing, and Demonstration (EMD) phase of its Tactical UAV--Vertical Take Off and Landing system called Fire Scout. The Navy's proposal was to conduct concept of operations work with the five systems purchased with the EMD contract, but to not move forward into production because the system could not meet the stated requirement. This action essentially terminated the Fire Scout UAV program and Congress provided additional funds for needed upgrades to existing Pioneer Tactical UAV in order to meet near term requirements for the Navy and Marine Corps.

The fiscal 2004 budget request appears to reverse the 2003 decision by including \$4 million to continue development of the Fire Scout. In addition, the Navy's Unfunded Requirements list includes another \$35 million for Fire Scout. This does not sound like a terminated program.

What is the story on Fire Scout?

Answer. In 2002, the Navy restructured the Vertical Takeoff and Landing Tactical Unmanned Aerial Vehicle (VTUAV) program to end with the completion of Engineering and Manufacturing Development (E&MD) and one Low Rate Initial Production (LRIP) system.

In January 2003, the Navy identified VTUAV as a candidate system for deployment aboard the Littoral Combat Ship (LCS) Flight 0. According to our mission analysis, adopting existing, and near-term available surface warfare, mine warfare, and anti-submarine warfare sensors and weapons to the VTUAV and employing them from LCS Flight 0 would increase LCS combat capability, reduce reliance on manned helicopters, and push the sensor and (eventually) weapons envelope outward. Navy requested \$4 million in fiscal year 2004 to complete

shipboard developmental testing associated with the current VTUAV program. An additional \$35 million was identified on the Chief of Naval Operation's (CNO) Unfunded Programs List to develop LCS mission-unique capabilities. This effort would include additional VTUAV research and development to facilitate the integration of a VTUAV with the emerging Littoral Combat Ship (LCS) requirement.

Despite the 2002 restructuring of the VTUAV program, the Marine Corps does not feel Fire Scout meets their Expeditionary Maneuver Warfare requirements for range, transportation to and use from primitive sites, and survivability as laid out in Ship-to-Objective Maneuver (STOM) operations.

Question. Just 12 months ago you were arguing that the system did not meet the requirement, what has changed?

Answer. The original VTUAV program was developed in support of Marine Corps requirements. In the past 12 months, the Navy initiated the Littoral Combat Ship (LCS) program to fill a gap in surface warfare, mine warfare and anti-submarine warfare. LCS will rely heavily on unmanned systems to provide combat capability in these areas. The current VTUAV program supports LCS surface warfare and intelligence, surveillance and reconnaissance missions. Adaptation of additional sensor and weapons will address the LCS Flight 0 requirements in all three focused Mission areas.

The Marine Corps understands the need for a VTUAV on the LCS, but, even with planned improvements, the Fire Scout falls short of meeting Marine Corps requirements for performance, deployability, reliability, survivability, cost, and schedule.

Question. Considering the other options available for you with respect to other Tactical UAVs available with other manufacturers, why are you pursuing a system that does not provide the endurance and the speed you state you need?

Answer. An improved Fire Scout with upgraded speed, range endurance, survivability, payload capability and weaponization will meet all the endurance and speed requirements for the LCS core missions of mine warfare, surface warfare and antisubmarine warfare with an initial operating capability (IOC) of fiscal year 2007. No other Tactical UAV is in development to meet all of the Navy's requirements by fiscal year 2007.

Since the improved Fire Scout does not meet Marine Corps mission requirements, the Marines are considering an alignment with the Coast Guard's Deep Water UAV program, Eagle Eye. In accordance with the Deputy Secretary of Defense's guidance to explore additional production of previously developed programs or to join in cooperative development programs with other governmental agencies, the Marines believe teaming with the Coast Guard is in the best interest of the service since Eagle Eye VUAV capabilities will surpass even the improved Fire Scout capabilities. A Marine Corps demonstration system can be delivered in fiscal year 2005 with a program IOC of early fiscal year 2008.

Question. Will you consider a re-competition of the contract?

Answer. Fire Scout was selected in a full and open competition. The Fire Scout meets the current VTUAV Operational Requirements Document (ORD). If a significant change in requirements necessitates a new ORD, the acquisition strategy will be revised to best balance resources to meet the warfighters' needs.

Question. How much will it cost the Navy to ``grow'' the Fire Scout into a system that meets the requirement--or are you prepared to revise the requirement? If the requirement is revised will you re-compete the contract?

Answer. The Navy does not expect to see significant changes to the requirements in order to meet Littoral Combat Ship mission focus areas; therefore, Navy does not intend to recompute the contract at this time. The Navy does envision an estimated \$147 million would be required for development and fielding. This includes the non-recurring engineering and four LRIP systems. A new acquisition strategy for a VTUAV would be developed if a new Operational Requirements Document with significant new requirements becomes necessary.

Question. Please provide a detailed explanation for the \$4 million requested in the fiscal year 2004 request as well as the \$35 million identified on the unfunded requirements list.

Answer. The \$4 million requested in fiscal year 2004 funding is for shipboard testing associated with the completion of the current Vertical Takeoff and Landing Tactical UAV (VTUAV) Engineering and Manufacturing Development program. The \$35 million identified on CNO's Unfunded Programs List would be used to conduct additional VTUAV research and development to facilitate the integration of a VTUAV with the emerging Littoral Combat Ship (LCS) requirement.

Broad Area Maritime Surveillance

Question. Beginning in fiscal year 2002, Congress has supported the Navy's concept of using high altitude UAV's to conduct a majority of its maritime surveillance mission. The original objective was to use UAVs in conjunction with manned surveillance and reconnaissance aircraft to accomplish the surveillance and anti-submarine warfare missions.

What is the status of the Navy's BAMS program?

Answer. The Broad Area Maritime Surveillance (BAMS) Unmanned Aerial Vehicle (UAV) Program is proceeding to a Milestone B in the third quarter of fiscal year 2004. Requirements (Concepts of Operation, Operational Requirements Document, Analysis of Alternatives, and Command, Control, Communications, Computers, and Intelligence Support Plan) and acquisition documentation (acquisition strategy report, Test and Evaluation Master Plan, manpower estimate report, etc.) are in preparation to support the milestone.

Question. The Navy requested, and Congress provided, funds for the acquisition of two Global Hawk UAVs so that it could test and demonstrate maritime surveillance sensors. When will these UAVs deliver to the Navy and when will the test program be complete?

Answer. The two Global Hawk UAVs will deliver in the 2nd and 4th quarters of fiscal year 2005 respectively. The Navy intends to obtain maximum value from the Global Hawks through an extended test and experimentation program. The Global Hawks will be used for persistent Intelligence, Surveillance, and Reconnaissance (ISR) doctrine development and continuous refinement of concept of operations, and tactics, training, and procedures generation. The Global Hawks will continue as enduring test beds for UAV maritime sensors development. There is presently no defined completion date for the program.

Question. Is it the intent of the Navy to use the Global Hawk UAV as the platform for its BAMS Program or do you anticipate a competition for an alternate platform.

Answer. An Analysis of Alternatives is underway and is considering a number of platforms for Broad Area Maritime Surveillance Unmanned Aerial Vehicle. Concurrently, acquisition strategy options are being formulated. The results of these two efforts will assist the Navy in determining the most cost effective acquisition strategy to meet the

warfighting requirement.

Pioneer UAV

Question. General Hagee, there was great confusion last year as to the Marine Corps' requirement for a tactical UAV. The budget request included funds to upgrade the existing Pioneer UAV for connectivity and maintainability issues. However, last minute differing viewpoints on the Marine Corps' UAV needs lead the Committee to question the necessity of upgrading the Pioneer in favor of an alternative UAV.

What is the Marine Corps requirement for a tactical UAV?

Answer. The Marine Corps has a requirement for an organic UAV system that is interoperable with Joint C4I systems, is capable of operating from ships or seabases, and will seamlessly transition to operations ashore. This future UAV system should have the capability to support expeditionary maneuver warfare, and therefore, must be deployable by organic USMC aviation assets. The UAV system should be organized to provide scalable support to Marine Expeditionary Units, Marine Expeditionary Brigades, and Marine Expeditionary Forces. Most importantly, the UAV system must be responsive to the needs of a Marine Air Ground Task Force (MAGTF) commander by providing, through the use of modular payloads, reconnaissance, target designation, communications/data relay, and signals intelligence (SIGINT) capabilities. Without compromise, the UAV should be able to launch from an amphibious ship or seabase, provide persistent support to a MAGTF commander during movement to the objective, as well as during actions on the objective, and have the capability to return to the ship, seabase or a pre-designated site ashore. The future UAV system must be very reliable with low Mean Time Between Failures (MTBF) and low Maintenance Man Hours Per Flight Hour (MMPFH). The UAV must be maintainable in austere environments while requiring minimal manpower for servicing.

Question. Does the fiscal year 2004 budget request support your needs?

Answer. The 2004 budget provides an upgrade to the Pioneer UAV system. The system was fielded in 1988 and the upgraded Pioneer is intended to provide UAV capability to the Marine Corps until a common tactical vertical UAV (VUAV) is fielded in approximately FY 2009.

Question. What is the program of record that the Marine Corps supports--the Pioneer as upgraded or some other UAV?

Answer. The Marine Corps supports--the Pioneer upgrade as a stopgap system until FY 2009. The budget priorities for the Pioneer system provide safety, sustainment, and minor capabilities enhancements.

Question. With the submission of its fiscal year 2004 Budget, the Navy has proposed retiring DD-963 class destroyers, and earlier versions of the Aegis Class Cruisers. These actions would take the Navy's ship force structure below 300 ships in total, and below 116 surface ships.

Admiral Clark, what is the requirement for the total fleet size given the present national security strategy and threat environment?

Answer. In order to meet the key goals outlined by the Quadrennial Defense Review (QDR) and National Security Strategy (NSS), and to transform in a way that assures continued operational effectiveness in a changed security environment, the Navy-Marine Corps team has embraced Sea Power 21. Sea Power 21 is implemented via a Global Concept of Operations (CONOPs) that widely distributes the firepower of the fleet to bolster both homeland and theater security, improve crisis response

reaction time, and position us to win decisively in war. In the past, strategies focused on regional challenges. Today, we must think more globally to be ready to defend the vital interests of the United States against a broad range of potential challenges. Specifically, we need to increase the probability that we will be in the right place at the right time to deter and respond rapidly to terrorism and other transnational threats. The Global CONOPs will more broadly distribute combat power by creating additional independent strike groups (from 19 today to 37 in the future) capable of responding across the spectrum of conflict simultaneously around the world.

While many features of the Global CONOPs can be executed with today's forces, a fleet of approximately 375 battle force ships will be required in the future to fully implement the concept and execute the defense strategy. Independently, or as part of a Joint Task Force, this dispersed, netted, and operationally agile fleet will deliver the tailored mission capabilities needed to sustain homeland defense, provide security in four theaters, swiftly defeat two aggressors at the same time, and deliver decisive victory in one of those conflicts.

Question. Admiral Clark, what is the basis for the Navy's proposal to retire ships with remaining useful service life?

Answer. Accelerating the retirement of the SPRUANCE Class destroyers, the baseline one TICONDEROGA Class cruisers, and selected OLIVER HAZARD PERRY Class frigates was a difficult decision--but the right decision--and one based on the capabilities needed for both today's and tomorrow's threat environment. These ships are significantly less capable in the near-land threat environments we'll see in the future. They require more maintenance, modernization and additional manning to operate because they lack many of the optimal manning technologies of our newer platforms. Most importantly, they provide either redundant or significantly less effective strike and air defense capabilities than our other platforms. In every case, continuing to operate these ships for the few years remaining in their service lives adds little to our aggregate warfighting posture. Our ability to move forward with critical recapitalization and transformation efforts is improved from an affordability standpoint with savings from the higher ship and shore infrastructure costs associated with the unique life cycle requirements of the less capable DD 963's and baseline one cruisers. Current Navy warfighting analysis of likely combat scenarios over the next ten years indicates that the warfare missions for surface combatants are not well met by these less capable ships and accelerating their retirement adds little or no risk in the near-term, but helps significantly in facilitating our transition to the numbers, type and mix of ships we will require to execute the range of missions we anticipate in the 21st Century. In the long term, we need the next generation destroyer, DD(X), the next generation cruiser, CG(X) and the Littoral Combat Ship to address these missions.

Question. Do you believe that simply counting hulls is a useful metric when determining the effectiveness of today's fleet? What are some other ways of measuring the offensive and defensive capabilities of the fleet?

Answer. The global nature of the war on terror demands a global Navy that can muster at the far corners of the earth to deny sanctuary to the enemies of our country. If we are to be there when the nation calls upon us, then numbers do matter.

That said, it is the offensive and defensive capabilities that count if we are to use the maneuver area of the sea to our nation's

advantage. We can--and do--measure those capabilities in terms of weapon range, sensor fidelity, data processing speed, and other measures of effectiveness. The best metric then is the synergy between these capabilities and the right number of platforms to truly measure the combat power of today's--and tomorrow's--Navy.

Question. What are the risks associated with a reduced fleet size--can this risk be mitigated with a better mix of effective platforms?

Answer. The global nature of the war on terror demands a global Navy that can muster at the far corners of the earth to deny sanctuary to the enemies of our country. If we are to be there when the nation calls upon us, then numbers do matter. So in the simplest terms, reduced fleet size incurs some risk in the Navy's ability to be where it's needed, when it's needed.

That said, our analysis indicates that our proposed near-term inactivations and our remaining war fighting capability provide an acceptable level of risk without compromising our ability to accomplish our mission. The reason for this is three-fold.

First, because we've made important gains in the current readiness of our legacy force these last few years; it produced the more responsive force we've seen on deployment this year.

Second, because the types of combatants scheduled for decommissioning--SPRUANCE Class (DD 963) Destroyers, Baseline 1 TICONDEROGA Class (CG 47) Cruisers (non-Vertical Launch System (VLS) capable), and older OLIVER HAZARD PERRY Class (FFG 7) Frigates--are not well suited to take on the threats projected to develop over the next 10 years, especially in the areas of missile defense and warfare in littoral waters.

Third, because we are investing the savings garnered from these decommissionings to invest in precisely the new ship capabilities needed to deal with these future threats. The next generation destroyer (DD(X)) and the Littoral Combat Ship (LCS) are funded within the FYDP and represent substantial future capability. DD(X) will provide Naval Surface Fire Support (NSFS) in support of expeditionary missions, acoustic stealth and advanced ASW capability, and large TLAM capacity. LCS will enable operations in nearland areas and provide capabilities, at lower cost, to defeat area-denial and anti-access efforts.

On balance, the risks associated with the temporary reduction in fleet size are mitigated by our investment in the future.

Question. Do you anticipate any other countries Navy becoming a peer competitor to the United States Navy in the next 20 years?

Answer. No, we do not anticipate the naval capability of another country becoming a peer competitor to the United States Navy in the next 20 years. Countries developing combat capabilities are not expected to possess the breadth and depth of the U.S. Navy's. The possibility does exist, however, that countries will develop asymmetric capabilities challenging U.S. supremacy in a specified location or mission area for a limited period. The American way of war has changed . . . we now fight as a joint force, often as part of a larger coalition. A capability to fight from a sea base is critical in this era of denial of basing ashore, reduced host nation support and anti-access strategies. Land-based cruise missiles and theater ballistic missiles are proliferating and further drive the requirement to provide a mobile, sea based shield for allied and joint forces operating ashore. The capabilities and concepts we are developing will provide us the ability to operate and fight from the sea, dictate the place and pace of combat, and win the nation's wars.

Question. What are some of the driving factors, other than sinking

the opposing force's Navy, that are used in determining the size and composition of the U.S. Navy fleet?

Answer. Force planning and capability, requirements, risk-based judgments, and fiscal realities determine the size and composition of the U.S. Navy fleet in a given budget year. Current defense planning has determined the force planning and capability requirements as:

- Defend the United States.
- Deter forward in critical areas.
- Swiftly defeat aggression in overlapping major conflicts, decisively defeating the adversary in one of these.
- Conduct a limited number of small-scale contingencies.

The Navy's approach to fulfilling this guidance is a product of robust campaign, capability and risk analyses; and as a result, the Global Concept of Operations (Global CONOPS) was developed. This transformational architecture distributes our combat striking power throughout a dispersed, networked fleet to support our joint war fighting operations. Its implementation will enable Sea Power 21 capabilities and will take us from the current 19 strike capable groups to 37 strike capable groups, built upon a force of approximately 375 ships.

While our POM04 and PR05 investment fully supports Sea Power 21 and Global CONOPS transformation, the Navy currently possesses neither all the capabilities nor the required mix of ships to achieve the desired Global CONOPS end state within the FYDP. Fiscal realities will determine when this size and composition is achieved.

Littoral Combat Ship (LCS)

Question. The Navy is currently experimenting with several small, high-speed vessels to determine what role they may have in a future littoral combat environment. Last year the defense appropriations conferees provided \$30 million above the budget to formally start the Littoral Combat Ship (LCS) program.

Describe the present concept of operations and program acquisition strategy for the LCS program.

Answer. The following is a synopsis of the Littoral Concept of Operations (CONOPS) developed by the Naval War Development Command and approved by the Chief of Naval Operations. The Littoral Combat Ship (LCS) CONOPS in its entirety can be provided as requested.

LCS will contribute to Sea Shield through its unique capability to respond quickly, operate in the littoral environment, and conduct focused missions with a variety of networked off-board systems. LCS will assure access for the Joint Force through, anti-submarine warfare (ASW), mine countermeasures (MCM) and surface warfare missions as well as through surveillance and reconnaissance. LCS also will directly support Sea Strike operations by enabling forced entry for Joint power projection forces. This includes support to Marine Corps, Army, and Special Operations Forces. LCS will be an enabler of Sea Basing by providing force protection to Joint assets and by acting as a swift and flexible logistics element for joint mobility and sustainment.

Littoral Combat Ships, with the appropriate network and off-board systems, will be able to operate as part of a littoral operations force, or as deployers with multi-mission fleet forces (Carrier Strike Groups/Expeditionary Strike Groups (CSGs/ESGs)) in a wide variety of tasks. These tasks include: ASW, MCM, counter small boats, lengthening and broadening surveillance horizons, conducting operational deception,

probing/testing enemy intentions and plans, hindering/complicating enemy attack preparations, deploying, monitoring and protecting sensors and weapons grids, performing Special Operations Forces (SOF) insertion and extraction, providing force protection, conducting scouting/manned reconnaissance, marker operations, combat search and rescue, and tactical sustainment and mobility for Joint Forces.

In terms of hull design, LCS will achieve a potent balance of mission capacity, maneuverability, stealth, and survivability. With a draft of 20 feet or less, an innovative hull form and propulsion system will enable LCS to operate at economical loiter speeds and to conduct high speed sprints between 40 and 50 knots. LCS hull design and propulsion systems will provide the maneuverability necessary to transit in advance of other forces, ensure survivability and self-defense, and quickly reposition in response to operational requirements. Proven signature management technologies designed to minimize infrared, acoustic, and magnetic emissions and limit its radar cross-section will also be employed.

LCS is currently initiating pre-Milestone A/Defense Acquisition Executive (DAE) approval acquisition activities, including analysis of requirements, exploration of technologies and new system concepts, program planning, and development of an acquisition strategy. The LCS Request for Proposals (RFP), released on February 28, 2003, solicits Preliminary Designs for LCS Flight 0, Phase I with options for Phase II--Final Design and Detail Design and Construction. The award of up to three Flight 0 Preliminary Design contracts for LCS is expected in the July 2003 timeframe. LCS Flight 0 construction is scheduled to commence in fiscal year 2005.

Question. How does LCS ``fit in'' with your ``family of ships'' concept?

Answer. Development of our next generation cruiser, CG(X), our next-generation multi-mission destroyer, DD(X), and the Littoral Combat Ship, LCS, are each critical to the future Navy. Each future surface combatant is optimized to perform a key function: CG(X) to create and maintain air superiority over the Joint force at sea and on land; DD(X) for delivery of precision strike and volume fires to support assured access and maneuver warfare; and LCS to operate closer to shore to deny the enemy the use of asymmetric threats in an anti-access strategy using mines, submarines, and swarming small combatants. As such, CG(X), DD(X), and LCS will provide complementary capabilities that are fully netted to the Joint force.

Question. If the LCS is to presumably work very close to enemy shores with small crew contingents, what self-defense capabilities will it have?

Answer. The Littoral Combat Ship (LCS) will incorporate a total ship approach to survivability that addresses susceptibility, vulnerability, and recoverability, with crew survival as a primary objective. The principal means to minimize susceptibility include speed, agility, signature management and a core self-defense weapon suite. The LCS core weapon/sensor systems will provide the capability to detect, identify, track and protect itself against threats including anti-ship cruise missiles (ASCMs), aircraft, surface craft, mines and torpedoes. Additionally, LCS will complement speed, signature management, hard kill and soft kill systems with networked capabilities to improve situational awareness and disrupt the threat's detect-to-engage sequence in the littoral environment. The following are some of the projected defense capabilities for specific threat areas:

Mine Warfare (MIW).--In all mission configurations the LCS shall

have core systems that provide the capability to conduct precise navigation to avoid previously identified minefields, and enable the employment of off-board or onboard sensors to perform mine avoidance along the LCS' intended track.

Anti-Surface Warfare (ASUW).--In all mission configurations the LCS shall have core systems that provide the capability to conduct multi-sensor search, detection, classification, localization and tracking of surface contacts in its assigned area of responsibility. The LCS will also have the core capability to protect itself against small boat attacks, including the use of speed and maneuverability, and have the core capability to conduct warning and disabling fire.

Anti-Submarine Warfare (ASW).--In all mission configurations the LCS shall have core systems that provide the capability to detect threat torpedoes at sufficient range to permit initiation of effective countermeasure and/or maneuver action to defeat the threat.

Question. Previously, the Navy has justified the submarine requirement based on the need to operate close to shore. With the introduction of the LCS, what is the role of the submarine in littoral combat?

Answer. Submarines remain critical contributors to U.S. undersea preeminence including waters in the littoral environment. Their technical and operational capabilities pose significant obstacles to potential adversaries who would seek to use the oceans to attack our interests.

Submarines provide the United States an asymmetric advantage by projecting power from under the sea, sustaining U.S. Forces in distant anti-access and area denial environments, and in denying enemies sanctuary by providing persistent intelligence, surveillance, tracking, and rapid engagement.

The submarine's characteristics make it uniquely capable of conducting clandestine missions in the littoral environment including:

- Independent operations even when faced with a hostile enemy.

- Extensive unreplenished operations.

- Undersea warfare battlespace dominance.

- Surface warfare against large surface ships or combatants.

- Clandestine electronic, acoustic and visual Intelligence, Surveillance and Reconnaissance (ISR).

- Strike with surprise from within an adversary's defense umbrella.

- Clandestine SOF support.

Question. Do you think that the LCS would benefit from more experimentation to determine its role before commencing a new development program?

Answer. Lessons learned from Navy experimentation with small high-speed ships and innovative hull forms such as the High Speed Vessel (HSV-X1), TRITON, and SLICE are invaluable in helping to formulate the Littoral Combat Ship (LCS) role. We continue to rely on these vessels to inform us in areas such as modularity, common launch and recovery systems, and off-board vehicle operations. Vessels such as Hybrid Deep Vee Demonstrator (HDV(D)-100), Hybrid Small Waterplane Area Craft (HYSWAC), and X-CRAFT, will provide hydrodynamic information for potential LCS candidates. Other efforts include studies/analysis by the Naval War College, Naval Warfare Development Center, and industry. Together, experimentation and analysis have laid a solid foundation for the LCS sea frame and mission module CONOPs.

Question. What are the initial cost estimates, per unit, of the LCS?

Answer. The LCS Flight 0 Preliminary Design Request For Proposals issued on February 28, 2003, states that the Cost as an Independent Variable target for the LCS and the installed core mission systems is \$220 million fiscal year 2005 dollars threshold and \$150 million fiscal year 2005 dollars objective. This includes: detail design; basic ship construction costs; procurement, installation, and integration of the core systems; outfitting and post delivery costs; and testing. The mission packages are estimated to cost \$30 million to \$100 million each fiscal year 2005 dollars depending on the warfare mission that the module is supporting.

CVN-21 Aircraft Carrier

Question. The CVN-21 is the new transformational aircraft carrier for the Navy. It is, in fact, a merger of the CVNX-1 and CVNX-2 capabilities that were presented last year.

Please provide a brief description of the capabilities you envision for this new carrier.

Answer. The CVN 21 Class aircraft carriers will expand the capabilities of the NIMITZ Class in the following areas:

An increase in sortie generation rate from 140 fixed wing sorties/day to 160/day sustained for 30 days. To achieve this sortie rate, new technology and improved design concepts are being pursued to CVN 21 that will feature:

Enhanced/reconfigured flight deck:

Four electromagnetic catapults (EMALS).

Re-designed flight deck arrangement for ``pit stop'' servicing.

Three aircraft elevators for enhanced aircraft movement and servicing.

Smaller/lighter island design.

Advanced Arresting Gear (AAG).

Two hangar bays vice three (reduced weight, more parking area).

Improved weapons handling/aircraft servicing efficiencies:

Weapons elevator technology improvements.

Dedicated weapons sponson for handling and servicing ordnance outside the hull.

Improved weapons flow from magazine to flight deck.

Upper stage elevator optimized for weapons throughput to aircraft.

Additionally, CVN 21 will have:

Enhanced Self-Defense:

Multi-Function Radar and Volume Surveillance Radar, Dynamic armor system;

Anti-torpedo torpedo; and

Enhanced ship self defense system using ESSM.

New Nuclear Propulsion Plant:

All electric auxiliary systems;

Zonal electrical distribution system;

300% increase in electrical generation capacity over NIMITZ; and

Maximum use of reconfigurable spaces with standard distribution panels.

Survivability Improvements:

5, underbottom/enhanced magazine protection;
Ship righting moment improvements; and
Enhanced underwater protection.

Engineering Improvements:

Enhanced service life allowance (5%-7.5%) at delivery allows for predicted growth throughout the life of the ship; and

Computer design model using CATIA improves affordability of ship design changes and alterations.

Question. In fiscal year 2003, Congress provided an additional \$160 million for acceleration of the CVNX-1 carrier.

Is it your intention to use these additional funds instead for CVN-21?

Answer. Yes, these funds will be used for efforts originally planned for CVNX, now designated CVN 21.

Question. How, specifically, do you intend to use the \$160 million in additional funds?

Answer. In fiscal year 2003, Congress appropriated \$160 million over the President's request to accelerate existing CVNX-1 design efforts (propulsion/electric plant, HM&E, & Total Ship Integration efforts). This funding was required for the program definition, design maturity, and workforce maturity needed to support advanced construction efforts. The additional funds provide a level-loaded workforce in the peak design years, completion of the requirements definition needed to support award of a detailed design and advanced construction contract in fiscal year 2004, and supports advanced construction efforts in fiscal years 2004-2006 by reducing both schedule and cost risk. Efforts are as follows:

Program definition

Complete ship specifications.
Refine detailed ship build strategy and shipyard facilities plan.
Develop detailed construction schedule.
Refine detailed ship design schedule based on construction schedule.

Design maturity

Complete 2nd revision of propulsion plant diagrams.
Complete system diagrams for affected hull, mechanical, and electrical systems.
Accelerate reactor compartment arrangement development.

Supports future construction schedule.
Supports more efficient implementation of design tools.
Supports more efficient design and construction plan.

Accelerate other propulsion plant and ship arrangement development to reduce cost and schedule risk and support flexibility in construction planning.

Workforce maturity

Accelerating effort allows design force to ramp to peak design manning by end of 2003.

Initiates 3-5 years of level-loaded design force in fiscal years 2004-2008 (vice large inefficient spike).

Allows use of experienced designers and engineers made available from other projects at Northrup Grumman Newport News and Electric Boat (CVN 77, VIRGINIA Class, and SSGN).

Question. The current funding profile for the CVN-21 is a request for split funding of construction between fiscal years 2007 and 2008. Who knows what the budgets will look like 5 years from now, but we would like to know the rationale for split funding of this ship construction program.

Is there any issue, other than affordability, that drives you to such a proposal?

Answer. Affordability is the only driver for the split funding proposal.

Question. It is our understanding that such a proposal would increase the cost of the lead ship. Is that accurate?

Answer. The split funding proposal has no impact on the cost of the lead ship.

Question. What is the current estimate of the additional costs incurred in the program due to split funding of construction?

Answer. As stated above, there are no additional costs incurred by split funding ship construction.

Question. What and when is the next Milestone for this program?

Answer. The CVN 21 program is currently projecting a 3rd Quarter Fiscal Year 2004 Milestone B Defense Acquisition Board decision by the Under Secretary of Defense for Acquisition Technology and Logistics. The purpose of the Milestone B decision is to approve the program's entry into the System Development and Demonstration Phase.

Question. What business-reengineering processes did you use for the design of the ship? For example, you have rearranged weapons movement.

Answer. A three-step process was used to evaluate technologies and design concepts to be pulled forward from CVNX-2 and to recommend changes to improve capability beyond the CVNX-1 baseline. In the first step, six subject matter expert (SME) teams and three cross-functional teams were formed. SME teams examined discreet areas, while cross-functional teams examined areas impacting the entire ship. The team structure is listed below:

- Weapons Movement SME Team;
- Flight Deck SME Team;
- Hangar Bay/Aircraft Intermediate Maintenance Department SME Team;
- Integrated Island SME Team;
- Survivability SME Team;
- Material Movement SME Team;
- Sortie Generation Cross Functional Team;
- Weight & Stability Cross Functional Team; and
- Manpower Reduction Cross Functional Team.

The teams performed an assessment of each technology or design feature within their area of responsibility to evaluate affordability, schedule risk, contribution to warfighting capability, and impact on ship's manpower, weight, stability, and support systems. In addition, the cross functional teams summarized the combined impacts on weight and stability, manpower, and sortie generation rate resulting from the total package of technologies/design concepts that were recommended. These evaluations were uniformly conducted and documented according to guidance prepared by the program office. Over 100 participants representing 12 different organizations, including industry, the

science and technology community, fleet representatives, and other Navy organizations participated in this effort.

In the second step of the process, team recommendations were considered by the Concept Ship Executive Panel (CSEP). The CSEP was chaired by the Program Manager and included representatives from the Navy staff (N785--Head, Aircraft Carrier Programs), the Naval Sea Systems Command, the Naval Air Systems Command, the Office of Naval Research, and the Fleet. The CSEP considered the team proposals and, taking into account total ship impact, risk, and the cost/benefit analyses, recommended the CVN-21 concept ship for consideration by the Program Executive Office (PEO) for Carriers. PEO Carriers concurrence with the concept ship constituted the third step in the process.

Following PEO Carriers concurrence, the program office tasked Northrop Grumman Newport News (NGNN) with transforming the concept ship into a preliminary ship design. During this on-going process, NGNN, with appropriate participation by the Government, is refining and iterating the original concepts into workable designs that can be effectively integrated into the ship and meet operational requirements.

Question. Was this based on the results of a process reengineering study?

Answer. No. Processes currently in place for CVNX-1 are being utilized for CVN-21.

CVN-77 Aircraft Carrier

Question. The CVN-77, also known as the George H.W. BUSH, is to be the final ship of the CVN-68 NIMITZ Class aircraft carriers. The fiscal year 2004 budget request includes approximately \$1.2 billion in procurement funds and \$311 million in Research, Development, Test and Evaluation funds for the CVN-77.

In fiscal year 2003, this Committee raised concerns about the Navy's decision to use legacy technology; especially the multi-function radar and volume search radar, rather than advancing technology for the CVN-77 as planned.

The Congress eventually provided an additional \$90 million above the budget request in 2003 to advance ``potentially transformation technologies'' for the CVN-77. What are your plans for the expenditure of these funds?

Answer. As noted in the CVN-77 fiscal year 2003 Report to Congress dated February 15, 2003, the Navy held meetings with industry and government participating acquisition managers to investigate the following potential technology candidates:

- Full Service Integrated Networks--Wireless ICAN applications;

- Integrated Advanced Strike And Mission Planning Capabilities--SESS Information Operations Center (SIOC) Integration;

- Full Service Integrated Networks--Radio Room Automation;

- Common Flexible Island--Mast Clamp Current Probe;

- Common Flexible Island--Composite Mast;

- Multi-Modal Display Workstation & Integrated

- Advanced Strike And Mission Planning Capabilities--CV-TSC Technologies;

- Integrated Advanced Strike And Mission Planning Capabilities--Naval Strike Warfare Planning Center (NSWPC) Ready Room Technologies; and

Integrated Advanced Strike And Mission Planning
Capabilities--Joint Fires Network (JFN) and Naval Strike
Warfare Planning Center (NSWPC) Integration.

The Navy has further evaluated the specified technologies based on refined cost estimates, execution plans, risk plans, and a more detailed assessment of ship construction schedule impact. The following technologies are being pursued for implementation on CVN-77:

Full Service Integrated Networks--Radio Room
Automation;
Common Flexible Island--Mast Clamp Current Probe;
Common Flexible Island--Composite Mast;
Multi-Modal Display Workstation & Integrated
Advanced Strike And Mission Planning Capabilities--CV-TSC
Technologies;
Integrated Advanced Strike And Mission Planning
Capabilities--NSWPC Ready Room Technologies; and
Integrated Advanced Strike And Mission Planning
Capabilities--JFN and NSWPC Integration.

Question. Will these be technologies that could be transitioned to the CVN-21?

Answer. Any transformational technologies incorporated into CVN-77 will be included in the CVN-21 concept.

DD(X) Destroyer Program

Question. The Navy is continuing its development of the DD(X), the transformational destroyer program.

Please provide a brief description of the capabilities you envision for this new destroyer.

Answer. DD(X) is the centerpiece of a family of ships that will deliver a broad range of core capabilities to the Fleet. DD(X) will provide a baseline for spiral technology and engineering development to support a range of future surface ships including the Littoral Combat Ship (LCS) and the next generation cruiser, CG (X) .

DD(X) is a multi-mission surface combatant tailored to be the primary family of ships provider for volume fires and precision strike. Armed with an array of land-attack weapons including the Long Range Land Attack Projectile fired from the Advanced Gun System (AGS) and Tactical Tomahawk, DD(X) will provide persistent, distributed, long-range, precision attack needed in support of Marine Corps' future expeditionary operations in the littorals and for our joint forces operating deep inland. DD(X) is a critical enabler for the Navy's Sea Strike vision, which includes the Marine Corps' Expeditionary Maneuver Warfare, Ship-to-Objective Maneuver, and Operational Maneuver From the Sea concepts.

DD(X) will take advantage of advanced stealth technologies to be less detectable and less vulnerable to enemy attacks than the ships it will replace. A tumblehome hull form combined with an integrated deckhouse and apertures will significantly reduce radar cross-section and infrared signatures. An enhanced soft kill capability, including the latest in countermeasure technology, such as NULKA and TORCH enhanced by precise infrared and radar detection capabilities, will improve survivability in any combat environment. DD(X)'s active and passive sensors and countermeasures will force foes to close to much closer ranges allowing the robust combat systems more time to engage and kill targets.

An open architecture, distributed combat system will support a

``plug and play'' environment in which to operate AGS, an Advanced Vertical Launching System (VLS) and a Multi-Function Radar/Volume Search Radar (MFR/VSR) suite. With counter-fire target acquisition capability, MFR/VSR will significantly enhance the survivability of maneuver forces and indirect fire assets operating ashore. In addition to anti-air weapons, such as the Evolved Sea Sparrow Missile and Standard Missile, the Advanced VLS will house land attack missiles and will have the capability to carry and launch missiles to support a Ballistic Missile Defense mission. With a fully netted command, control, communications, computers, and intelligence (C4I) capability including Cooperative Engagement Capability, the remote launch of DD(X) missiles by another unit will be possible.

DD (X) will have an Integrated Undersea Warfare (IUSW) Suite. This bifocal sonar system, coupled with an embarked air detachment will make DD(X) the most capable blue water USW platform afloat. Augmented by an integrated organic mine-avoidance system, DD(X) will be able to operate in any battlespace. Advanced hull materials coupled with rafting of main engineering components and the latest in hull treatments will ensure DD(X) is the quietest and most magnetically stealthy combatant afloat.

Other significant DD(X) features include an Integrated Power System to allow rapid reconfiguration of power, reduced acoustic noise and a spiral to rail gun and the potential for directed-energy weapons aboard CG(X).

Question. What are the major technological issues that must be resolved with respect to the development of the DD(X) and do you believe you have a plan to successfully address these issues?

Answer. The major technological challenge with respect the development of the DD(X) is the concurrent design, build test of the ten Engineering Development Models (EDMs) listed below:

- Advanced Gun System.
- Integrated Power System.
- Dual Band Radar.
- Total Ship Computing Environment.
- Peripheral Vertical Launching System.
- Integrated Deckhouse & Apertures.
- Autonomic Fire Suppression System.
- Infrared Mockups.
- Hull Form Scale Model.
- Integrated Undersea Warfare System.

There is a plan in place that includes extensive land at-sea testing of the EDMs as part of a comprehensive risk mitigation approach to be performed within the scope of the DD(X) design agent contract (fiscal years 2002-2005). Using the spiral development approach, the test plan will allow the DD(X) program to manage risk through test demonstrations that provide continuous feedback to the DD(X) system design.

Question. What are the major design issues that must be resolved with respect to the development of the DD(X) and do you believe you have a plan to successfully address these issues?

Answer. The major design challenge is associated with integration activities. Signatures, human system integration, electromagnetic interference and compatibility, damage control automation, and Cost As an Independent Variable (CAIV) are examples of interrelated design attributes. The plan being executed is the development of the ship design through a total ship system design process, with iterative baselines established for critical analysis. The process yields a

design at pre-established decision points that is balanced to maximize achieving a total ship performance within the CAIV goal. The resulting design can be further iterated through trade studies to analyze a requirements change or to optimize priority performance in a given mission area. The discipline of the process and flexibility allowed by the process tools are key to the successful design cycle process.

The composition of the Design Agent Team is another key to the successful design process. The Team contains both shipbuilders (Northrop Grumman Ship Systems, Pascagoula, MS, and Bath Iron Works, Bath, ME), and a National Team that includes Raytheon, Lockheed Martin, Boeing, United Defense Limited Partnership, and Northrop Grumman Information Technology.

Question. The Navy is proposing a spiral development approach to the DD(X), which in itself is rather ``transformational.'' Is this a spiral development plan that meets the criteria established by Secretary Aldridge? One of the challenges of managing a spiral development program is having a solid test and evaluation plan that allows sufficient testing at the end of each spiral based on a approved set of criteria. Do you have a test and evaluation plan?

Answer. The DD(X) spiral development approach was approved by Secretary Aldridge when the DD21 Program was restructured to DD(X) in November 2001.

The DD(X) Test and Evaluation Master Plan is under development and being engineered to specifically address evaluation of the DD(X) Flight I baseline. There is an extensive series of lower level engineering systems tests that are pre-cursors to land and at-sea tests planned to demonstrate ship system performance. These risk mitigation activities will precede equipment production and ship construction. This includes testing of the Dual Band Radar, Integrated Power System and Total Ship Computing Environment on the EX-RADFORD.

Question. One controversial aspect of the DD(X) is the funding of the first ship through the RDT&E appropriation in fiscal year 2005, rather than the traditional approach of funding the lead ship of any class in the Shipbuilding and Conversion appropriation.

What is the rationale for this funding proposal?

Answer. The rationale for funding the first DD(X) Class ship with RDT&E funding is that it allows the program to more easily address the inherent technical and integration challenges of a lead ship through the use of annual funding while maximizing technology benefits in the shortest time period. In addition, the use of RDT&E funding minimizes prior year shipbuilding bills, which has been a Navy and Congressional concern in recent years.

Question. Considering this is a spiral development approach, it is possible that the design and weapons capabilities will not be solid by fiscal year 2006 when you anticipate procurement of the second ship.

Will you have sufficient information on the design and capabilities to go forward with procurement just one year after initiating the R&D ship?

Answer. The design and capabilities of the first Flight will be solid before construction begins on the first ship. The second ship is planned to succeed the first ship by one year. The engineering data package that supports the first ship construction is the same engineering data package that supports the construction of the second ship. Both shipbuilders will be involved in the ship design and will utilize the same 3-D CAD/CAM system to minimize design issues and the transfer of manufacturing data.

DDG-51 Destroyer Program

Question. During discussions last year, the Navy stated its intent to procure one, and the last, DDG-51 in fiscal year 2006. The fiscal year 2004 budget request now shows no DDG-51 acquisition in fiscal year 2006.

Please tell us why this additional DDG-51 vessel is not going to be procured in fiscal year 2006.

Answer. In order to transform to meet future threats, the Navy must move toward DD(X) as soon as feasible. By concluding the procurement of DDG-51 Class ships in fiscal year 2005 and reallocating funding to DD(X), Navy was able to add a DD (X) in fiscal year 2006 and fiscal year 2007 in its fiscal year 2004 budget request, two more than the fiscal year 2003 request.

Question. Since the follow-on to the DDG-51 is the DD(X), do you anticipate that should the DD(X) schedule slip, you would seek an additional DDG-51 in the 2006 budget?

Answer. The DD(X) program is on schedule to begin procurement in fiscal year 2005, no slippage is anticipated. Navy is committed to maintaining a robust shipbuilding program. Recapitalization requirements and industrial base health will be taken into consideration in the formulation of future shipbuilding program budgets as necessary.

Question. Without this additional one ship in 2006, what is the anticipated impact on shipyard workload?

Answer. Loss of the fiscal year 2006 DDG-51 Class ship has an adverse impact on the Surface Combatant industrial base workload. Surface combatant procurements have averaged three ships per year since the mid-1990s. The fiscal year 2004 President's Budget shipbuilding plan sustains surface combatant production at a minimum of one ship per year during the transition from the DDG-51 Class to the DD(X) class. However, this will result in a surface combatant production gap in fiscal year 2006 or fiscal year 2007 at both General Dynamics Bath Iron Works and Northrop Grumman Ship Systems (NGSS). Specific shipyard impacts will vary, depending on workload projections at each yard. A critical variable is award of the DD(X) lead-ship production contract in fiscal year 2005, and ramp up of continuous, follow ship DD(X) production in fiscal year 2006 and out. Regardless, additional work will be needed to sustain each yard during the fiscal year 2006-07 transition period.

NGSS has ongoing, concurrent production for LPD 17 Class ships, LHD 8, and startup of the LHA(R) shipbuilding program during the DDG-DD(X) transition period. NGSS will also be initiating production for the Coast Guard Deepwater Program during this same time frame. The lack of the fiscal year 2006 DDG will have an adverse impact at this shipyard, potentially increasing costs due to higher overhead rates, production inefficiencies, and cost increases to sustain critical second tier vendors.

Bath Iron Works (BIW) has no other concurrent shipbuilding work beyond their existing DDG-51 production workload during the planned transition from DDG to DD(X) production. Should BIW not be awarded the lead DD(X) production contract, the lack of the fiscal year 2006 DDG will make the transition to DD(X) follow-on construction more costly to the Navy.

As a part of the DDG-LPD workload swap, the first three of four ships were ``swapped'' as a part of the award process for the fiscal year 2002 DDG multiyear procurement. This was in accordance with the

LPD/DDG workload realignment Memorandum of Understanding (MOU) signed in June 2002. Per the MOU, BIW is entitled to the equivalent workload of one DDG at some future date, pending award of LPD-28 to NGSS. Loss of the fiscal year 2006 DDG may transition this workload swap agreement to the DD(X) program and could affect the Navy's future production planning for DD(X).

Virginia Class Submarine--Multiyear Procurement

Question. The fiscal year 2004 budget request includes approximately \$2.6 billion for the VIRGINIA Class submarine program. Of this amount, \$2.5 billion is for procurement and \$106 million is for R&D. The budget request also includes a request for a 7-ship multi-year procurement for fiscal years 2004 through 2008.

Does this program meet all the criteria for a multi-year procurement decision?

Answer. The VIRGINIA Program meets all United States Code Title 10 conditions for multi-year procurement (MYP).

a. Substantial savings: \$805 million for seven ships (\$115 million per ship).

b. Stability of Requirement: VIRGINIA Class is necessary to achieve and maintain required SSN force level, ensure continuous US undersea superiority, and provide a highly capable and flexible SSN for the future. The Program is planned for 30 ships.

c. Stability of Funding: The Navy gives VIRGINIA Class program high priority, and the Department is committed to fund this MYP throughout the contract period.

d. Stability of Configuration/Design: VIRGINIA design is essentially complete; design changes are the lowest in submarine construction history; major key events have been met; and early testing, including evaluation by Commander, Operational Test and Evaluation Force (COMOPTEVFOR) during OT-IIB, provides high confidence that the ship and systems will perform as required.

e. Realistic cost estimates: VIRGINIA cost estimates are realistic as they are based on actual returns from the first four ships. The first ship is 82% complete.

f. National Security need: VIRGINIA Class', role in national security is documented in Quadrennial Defense Review and Joint Chiefs of Staff studies.

Question. With a June 2004 delivery date for the first boat, it is not likely that even one of the submarines will be operational before Congress will have to make a determination on proceeding with this multi-year procurement request. If this multi-year procurement is approved, will the Congress be setting a precedent for committing to a multi-year acquisition program prior to fielding the first system?

Answer. Authorization for multi-year procurement of VIRGINIA Class submarines would be earlier than in the Navy's other multi-year procurement shipbuilding program, DDG-51. However, the VIRGINIA Class design is 100 percent complete and construction of the lead submarine is more than 82 percent complete. We have enough information to effectively price and evaluate a multi-year contract.

A multi-year procurement is the most cost effective way to buy those submarines. Additionally, it creates industrial base stability, ensuring that efficiencies and saving are optimized.

Question. What are the estimated cost savings of this multi-year procurement proposal?

Answer. The estimated savings are \$805 million for seven submarines

(at least \$115 million per ship) procured in fiscal years 2004-2008. The savings assume continued shipbuilder teaming and use of Economic Ordering Quantity funds for material purchases.

Question. What would be the impact on your fiscal year 2004 request if Congress does not approve the proposal?

Answer. The below table provides the funding changes to the fiscal year 2004 budget request:

	FY	FY04	FY05	FY06
Quantity PB-04 Request (Multiyear).....		1	1	1
Restore Multi-year Savings.....		(115)	(115)	(115)
Reallocate FY04 EOQ.....		390	(65)	(65)
Reallocate FY05 EOQ.....			390	(78)
Reallocate FY06 EOQ.....				195
Net Change.....		275	210	(63)

Numbers in parenthesis () represent shortfalls to budget.

Question. Since the plan is a total of 30 submarines of this class, what is the logic of a 7-ship multi-year request?

Answer. Navy's minimum requirement for SSN force structure is 55 submarines. In order to sustain this level, it is essential to increase VIRGINIA SSN build rate to two submarines per year as soon as possible. Due to advance procurement requirements for long lead-time material, the earliest opportunity to increase the build rate to two SSNs/year is FY2007. While a multi-year procurement of five SSNs (i.e., one per year) would still reap savings over annual procurements, SSN force levels could not be maintained at 55 over the long-term. Additionally, while a multi-year contract for five SSNs with options to buy two more would also result in significant savings over annual procurements, the shipbuilder could not procure Economic Order Quantity (EOQ) materials for the option ships, reducing the savings possible for these SSNs.

Virginia Class Submarine--Cost Overruns

Question. Recent press articles as well as statements from senior DoD officials, point to a serious problem with VIRGINIA Class submarine cost overruns.

What is the current estimate of the total program cost growth and what is the genesis for these overruns?

Answer. The VIRGINIA Class 30-ship program cost estimate is \$64,747.5 million (Base Year FY95 Dollars) or \$81,792.2 million (Then Year Dollars). This reflects a Procurement Acquisition Unit Cost increase from \$1739.4 million to \$2158.3 million (Base Year FY95 Dollars) or 24% since the last Acquisition Program Baseline (APB) in December 2000. The major changes reflected in the revised cost baseline include:

Labor and material costs have risen because of higher than expected inflation. DoD inflation projections were in the 1-2% range, whereas actual experience is in the 4.0-4.5% range.

Pensions and health care costs are increasing contractor overhead costs. This pattern is consistent with what is being experienced in the economy in general.

The continued low rate of submarine production has led to a shrinking vendor base and higher material costs. Vendors are requiring a premium for highly specialized equipment with no other military or commercial applications.

Changes to cost estimates based on cost returns from the first four ships under construction, which indicated that actual labor hour and material costs are slightly higher than originally estimated.

There are two components of cost growth. First, there is real growth in material, labor, overhead, and worker benefits that has occurred since the December 2000 baseline (19%). This component is reduced by 7% for multi-year savings for a net cost growth of 12%. Second, there is another component of growth due to different escalation and de-escalation calculations in the 2000 baseline (12%). This component arises because, in the 2000 baseline, the cost of ships outside the Future Years Defense Program (FYDP) were escalated and de-escalated at OSD-approved indices whereas, in the 2002 APB update, these ships were escalated based on best available labor and material escalation information and de-escalated at OSD-approved indices thus artificially inflating program cost growth. The two components are real bills that DoD must pay. However, it is misleading to characterize the total 24% as new cost growth over the last two years of the program.

The new estimate reflects DoD's current policy to accurately price programs using realistic cost data and realistic inflation assumptions. The four VIRGINIA Class submarines now under contract are progressing according to schedules established eight years ago, and the lead ship is expected to be delivered to the Navy a month early.

Question. Given the history of cost overruns in the Navy shipbuilding program, why should this Committee believe that all the cost growth has been identified--can you be certain we will not be surprised with yet another cost growth in this program?

Answer. The VIRGINIA Class Program Office and Navy acquisition officials are aggressively challenging any cost increases while pursuing strategies to achieve the lowest possible future costs. Shortfall areas associated with designing a new class of submarine will not affect future contracts since this effort is essentially complete. The Navy is structuring the follow-on construction contract (for the next five to seven submarines) as a fixed-price incentive contract to incentivize construction savings. Additionally, the Navy has requested authority to transition to a multi-year contract with economic order quantity (EOQ) provisions in fiscal year 2004, which will reduce costs through greater shipyard efficiency and authority to purchase material in larger quantities. Finally, the fiscal year 2004 President's Budget request plans to increase the submarine build rate in fiscal year 2007 and beyond to preserve the submarine force structure necessary for continuing U.S. undersea dominance. The increased build rate will contribute significantly toward reducing per-unit costs by reducing overhead costs.

Question. Recent press articles as well as statements from senior DoD officials, point to a serious problem with VIRGINIA Class submarine cost overruns.

What are the Navy's options for controlling cost of this program? One option the Navy may be pursuing is to buy more submarines and therefore reduce the cost per vessel; another option is to reduce the total buy, thereby reducing the total cost of the program. What would be the impact on the Navy's force structure if it built fewer VIRGINIA Class submarines?

Answer. Current SSN force level is 54. The 2001 Quadrennial Defense Review (QDR) sets the moderate risk level SSN force level at 55. The 1999 Chairman, Joint Chiefs of Staff (CJCS) Study reached the conclusion that fewer than 55 attack submarines in 2015 and fewer than 62 in 2025 would leave Combatant Commanders with insufficient capability to respond to urgent crucial demand without gapping other requirements of high national interest. Additional Navy studies since 1999 have identified the minimum warfighting requirement of SSNs as 55.

Current SSN force level is inadequate to meet current Combatant Commander demands. For calendar year 2003, Combatant Commanders have requested between 14 and 15 deployed SSNs for National and Combatant Commander ISR, Tomahawk strike, Carrier Battle Group support, and Special Operations Force-equipped SSN missions. Considering sustainability and training requirements, the Navy is able to sustain 10 SSNs deployed with the current force level.

If the VIRGINIA build rate were to remain at 1 per year, (considered the minimum rate to maintain supplier and industrial base) and the Program of Record plan to refuel five LOS ANGELES Class SSNs is maintained, SSN force level would reach 55 in 2008, but decrease to 54 by 2015, 46 by 2017, and 36 by 2025. The rapid decrease is due to the retirement of the LOS ANGELES Class SSNs as they reach the end of hull life.

Question. Have you explored the option of terminating this program after construction of submarines currently under contract and pursuing other submarine construction options?

Answer. Termination of the VIRGINIA Class program after the current contract and investigation of other submarine construction options has not been pursued. There are no ``off the-shelf '' submarine designs that would satisfy U.S. submarine mission requirements that could be built at a lower cost than the VIRGINIA Class. The VIRGINIA Class submarine was designed to meet the security requirements of the post-Cold War era while minimizing submarine procurement and life-cycle costs. With a focus on the littoral battlespace, VIRGINIA Class is designed for flexibility in responding to changing missions and threats. Its modular design, which allows for affordable insertion of new technologies, ensures it will continue to be the right submarine well into the 21st century.

Question. What would be the cost of the program termination after construction of SSN 777, which is scheduled for a December 2007 delivery?

Answer. There have been no estimates made of the cost to terminate the VIRGINIA Class program. In 1994, following the termination of the SEAWOLF program, RAND published ``The U.S. Submarine Production Base: An Analysis of Cost, Schedule, and Risk for Selected Force Structures''. The 1994 RAND report estimated the indirect costs of stopping and later restarting submarine production at nearly \$3B (FY1992 dollars). This figure included shutdown, cumulative maintenance, shipyard restart and vendor restart costs.

Question. What is the total life cycle cost of a VIRGINIA Class submarine and how does that compare to other classes of submarines in the Fleet?

Answer. For the 30-ship VIRGINIA Class, using fiscal year 1995 (base year) dollars, Total Acquisition Cost of \$64,747.5 million (per APB Change 3, 4/02/03) plus Operating and Support Cost of \$31,343.0 million (per Selected Acquisition Report, 12/31/02) yields Total Life Cycle Cost = \$96,090 million. Total life cycle cost for one VIRGINIA Class submarine is \$3,203 million.

Because of the significant differences in submarine class sizes, direct comparisons of life cycle costs are tenuous. For example, the 62 LOS ANGELES Class SSNs have lower support costs per ship because support costs are spread over twice as many submarines as the VIRGINIA Class. Additionally, the VIRGINIA Class estimate accounts for the addition of significant new systems and capabilities (such as Vertical Missile Launch, Advanced SEAL Delivery Vehicle and Dry Deck Shelter, Under-Ice Capability, and Special Hull Treatment) that are not accounted for in the LOS ANGELES estimate. Given these significant differences, the best available estimates of average annual operating and support costs (per ship, in fiscal year 1995 base, year dollars) for the VIRGINIA Class and the LOS ANGELES class are \$35 million and \$26 million, respectively.

Ballistic Missile Defense System Weapons

Question. One element of the Midcourse Defense Segment of the Ballistic Missile Defense system (BMDS) is the AEGIS BMD program. This system is intended to defend against exo-atmospheric short-range ballistic missiles (SRBMs) and Intermediate Range Ballistic Missiles (IRBMs) in the terminal and midcourse phases. The system uses the AEGIS Weapons System with the Navy Standard Missile serving as the interceptor.

Please explain the program or agreement between the Missile Defense Agency and the Navy under which you provide access to the ship(s) that MDA needs to support the AEGIS BMD program.

Answer. The Navy is in process of assigning USS LAKE ERIE (CG-70) to the Missile Defense Agency (MDA) as a dedicated ballistic missile defense testing platform. This action allows the MDA testing program to avoid the delay and expense that would be involved in modifying an older Aegis-equipped cruiser to accomplish the testing mission and it demonstrates Navy's firm commitment to missile defense as a core mission. OSD concurred and directed this action. OSD also directed MDA to procure Standard Missile-3 missiles and Ballistic Missile Defense (BMD) upgrade ship sets to facilitate an early deployment of Navy missile defense capability. A Memorandum of Understanding is currently in staffing which will stipulate the LAKE ERIE cost sharing arrangement, administrative actions, and other operational details between Navy and the MDA. We expect the actual ship assignment to occur this summer.

Question. The Committee understands that one AEGIS cruiser is under the control of the Missile Defense Agency for purposes of the Ballistic Missile Defense System test bed. Please explain what ``control'' means in this case.

Answer. MDA control means that the ship's schedule and operations will be dedicated to MDA sponsored ballistic missile defense testing. A Memorandum of Understanding is currently in staffing with MDA and will stipulate the LAKE ERIE cost sharing arrangement, administrative actions, and other operational details between Navy and the MDA.

Question. If an AEGIS class ship serves in the AEGIS BMD program, is the ship also available for other surface combatant missions? Please explain why or why not.

Answer. Aegis-equipped ships are multi-purpose platforms and are capable of multi-tasking. The extent to which multi-mission tasking would be possible will depend upon the specific geographical position and combat system set-up required by the specific mission. We anticipate that the multi-purpose employment of an Aegis-equipped ship

will remain unchanged by this new mission.

Question. The Committee understands the Navy is considering deployment of a stand-alone strike group of missile defense ships as early as next year. Please explain the Navy's plans and how they fit into the Missile Defense Agency AEGIS BMD program.

Answer. The concept of a Missile Defense Strike Group is consistent with the President's December 2002 decision to field an initial operating capability for sea-based Missile Defense not later than 2005, and with Navy's SEA POWER 21 vision for the future. However, the planning for deployment of such a group remains at an embryonic stage. Commander, Fleet Forces Command has been tasked to undertake this conceptual work and will report the results to me this summer. The requested information will be provided as soon as it becomes available.

Question. Does the Missile Defense Agency budget request for fiscal year 2004 fully fund the AEGIS BMD program? Has the Navy requested funds in the fiscal year 2004 budget to supplement the MDA request? If so what requirements are funded in the Navy budget request.

Answer. It is the Navy's understanding that the Missile Defense Agency has fully funded the Block 04 Initial Defensive Operations Capability of the Aegis BMD program element. As this program is currently technology-paced, Navy does not request funds to supplement the MDA request. Such action should occur, if required, in MDA's area of responsibility.

Question. The Committee understands there are technical issues concerning attitude control on the SM-3 missile. Please explain the technical challenges you face, and whether you believe this will affect the Missile Defense Agency's ability to deploy the AEGIS BMD system.

Answer. The issues involving the Solid Divert and Attitude Control System (SDACS) in the SM-3 missile are related to manufacturing and production, rather than hit-to-kill technology. The current SDACS design utilizes rhenium, an exotic material designed to tolerate the high heat flux involved in operating a rocket motor in space. This material has proved difficult to weld and fabricate into the intricate tubes, ports and passages featured in the current SDACS design. The Navy is pursuing an alternative, more tolerant design featuring a monolithic casting. This alternative SDACS is easier to manufacture, has been successful in ground testing and will be flight-tested in FM-5, slated to occur this summer. While technical risk certainly is extant in the monolithic SDACS design, the current engineering assessment is favorable.

Impact of Operating Tempo on Depot Maintenance

Question. Mr. Secretary, scheduling ship depot maintenance is an art form in the best of times, and it must be a real challenge given the current operating tempo. How has the ongoing deployment surge and combat operating tempo impacted your ability to make ships available for the scheduled maintenance periods in this current fiscal year?

Answer. Based on the Fiscal Year 2004 President's Budget request, there are 86 Chief of Naval Operations scheduled ship availabilities funded for execution in fiscal year 2003. Nine availabilities have been rescheduled to support operations, but they have not been canceled. Based on operational assumptions as of March 20, 2003, 11 more availabilities are expected to change from the original scheduled dates. All but one are expected to execute prior to the end of the fiscal year, but some may be reduced in scope.

Question. The high operating tempo has also increased the need for

maintenance as ships and airplanes are experiencing greater than anticipated use when these assets are returned to their homeports, do you expect you will be able to adjust the depot maintenance schedule to accomplish the necessary work?

Answer. Based on the operational schedule as of March 20, 2003, we expect to be able to adjust the ship depot maintenance schedules to accomplish the necessary work. However, we are projecting that one availability scheduled for fiscal year 2003 will need to be performed in fiscal year 2004 to support the current operational schedule. We will continue to adjust our maintenance plan as the return dates of the deployed ships are finalized.

Aviation depot maintenance is schedule and usage driven. We may find additional maintenance on particular airframes and engines is required once we induct each plane. The induction schedule has been modified and is executable if we receive supplemental funding soon (mid-May 2003).

Question. Will the Navy need supplemental funding in order to accomplish increased depot level ship maintenance requirements in the current fiscal year? If the ships can be made available and the money is there, is the shipyard capacity adequate?

Answer. Yes, we will need supplemental funding to accomplish increased depot-level ship maintenance requirements in fiscal year 2003 and for the depot-level maintenance that will be required on the ships participating in Operation IRAQI FREEDOM that are going into a maintenance period in fiscal year 2004. If the ships are available and the supplemental funding is provided, we expect the public and private shipyards to be able to perform the required work.

Question. Given the current pace of operations, do you now expect a surge in depot work requirements for 2004? Please discuss how you will balance deployment requirements and maintenance facility capacity. Will additional funding be needed in fiscal year 2004 for this surge?

Answer. We do expect additional ship depot work requirements for fiscal year 2004 as a result of Operation IRAQI FREEDOM (OIF). Based on projected operational requirements as of March 20, 2003, we anticipate that we will have the capacity at the public and private maintenance facilities to perform the work that will be required in fiscal year 2004.

Our request for the fiscal year 2003 supplemental included funding to perform depot level maintenance on OIF ships. If the fiscal year 2003 supplemental is adequate and allows for funding to be obligated in fiscal year 2004, additional fiscal year 2004 funding is not projected at this time. If fiscal year 2003 supplemental funding cannot be used in fiscal year 2004 or other higher priority fiscal year 2003 OIF issues take precedent, additional funding will be required in fiscal year 2004 to cover the increased fiscal year 2004 ship maintenance requirement.

We expect a ``bow wave'' of depot inductions of those aircraft that were deployed in support of OIF and couldn't meet their originally scheduled inductions. These inductions will be accomplished when the aircraft return to the continental United States (CONUS). Additional funding should not be needed if supplemental funding is received soon (mid-May 2003).

Ship Depot Maintenance

Question. The fiscal year 2004 ship depot maintenance request consolidates funding for ship intermediate maintenance into the depot

maintenance line, and overall funding declines by approximately \$300 million and scheduled availabilities decline from 95 in 2003 to 87 in 2004 while funding for surface ship depot maintenance declines from 95% to 91.6%. In addition, fiscal year 2004 depot operations funding declines another \$300 million from 2003 levels. Admiral Clark, please provide your assessment of the health of the ship depot maintenance program.

Answer. The fiscal year 2004 budgeted amounts reflect the acceleration of the retirement of our oldest, most maintenance-intensive ships and the benefits provided through the fiscal year 2002 supplemental appropriations. The fiscal year 2004 percent funding is consistent with that budgeted for fiscal year 2003 in the fiscal year 2003 President's budget. Because ships' decommissioning dates were advanced from those planned in the fiscal year 2003 budget, maintenance funding budgeted for those ships was available to apply to other unfunded fiscal year 2003 requirements. This resulted in a higher percent funding for the fiscal year 2003 surface ships' maintenance.

The decrease in the ship depot operations support budget line is primarily driven by the \$236 million reduction in funding for Naval Sea Systems Command ship alteration program and funding for the Supervisor of Shipbuilding and Repair. This funding is a parallel reflection of the lower ship maintenance account.

Question. Why have scheduled availabilities been cut?

Answer. The actual number of scheduled availabilities varies on an annual basis based on force structure, operational requirements, and the ship class maintenance plan. We were able to reduce the ship maintenance funding in fiscal year 2004 while budgeting to fund a higher percentage of the requirement for several reasons. The cyclic nature of ship maintenance contributed to a lower requirement in fiscal year 2004; the requirement was reduced as we accelerated the retirement of our oldest, most maintenance-intensive ships; and finally, the reduced requirement directly reflects the benefits provided in the fiscal year 2002 supplemental appropriations.

Question. How can the ship depot maintenance program absorb a cut of \$600 million?

Answer. The fiscal year 2004 ship maintenance budget supports 96.2% of our notional operations and maintenance ship maintenance requirements. In fact, this percentage is slightly higher than the 95.5% funded in the fiscal year 2003 President's budget. We were able to reduce ship maintenance funding in fiscal year 2004 while budgeting to fund a higher percentage of the requirement for several reasons. The cyclic nature of ship maintenance contributed to a lower requirement in fiscal year 2004; the requirement was reduced as we accelerated the retirement of our oldest, most maintenance-intensive ships; and finally, the reduced requirement directly reflects the benefits provided in the fiscal year 2002 supplemental appropriations.

Question. Ship depot maintenance at Puget Sound Naval Shipyard has been transferred from the working capital fund and the proposal is that it be mission funded. To those of us who are unfamiliar with the intricacies of the working capital fund, what does this proposal mean? What are the factors that resulted in this decision?

Answer. Mission funding increases the Fleet's flexibility to respond to execution year priorities.

The primary factors for the shift to mission funding are:

Responsive to Fleet Needs: Maintenance required to prepare a ship for early deployment can be executed by adjusting work priorities. Under Navy Working Capital Fund additional funding for emergent work

must be made available in the execution year.

Efficient use of Resources: Under Navy Working Capital Fund all work must have specific customer funding. At times temporary low depot workload has resulted in workers being idle despite ships being available that require work. Under mission funding the underutilized workforce can be assigned to any required ship maintenance work.

Facilitates Integration and Consolidation of Maintenance Infrastructure within a Region: In some regions, Navy Working Capital Funded shipyards and mission funded intermediate maintenance facilities exist in close proximity to each other. This difference in funding systems inhibits sharing of resources between activities and the potential for ``singling up'' infrastructure. Moving the shipyards to mission funding facilitates this integration and consolidation.

Positive Execution Year Financial Controls: Mission funding provides direct and positive control of funds during the execution year. Under Navy Working Capital Funding execution year costs can vary from the planned costs and result in adjustments to the cost of work (rates charges) two years in the future.

Chemical Biological Incident Response Force

Question. The Marine Corps established the Chemical Biological Incident Response Force to provide rapid response to mitigate the effects of terrorism including chemical and biological incidents. CBIRF units include a total of 373 personnel of which 32 are from the Navy, 1 from the Army and the balance from the Marine Corps. Elements of the CBIRF were deployed in response to the Anthrax contamination discovered on Capitol Hill in late 2001.

An operational requirements document (ORD) has been approved within the past year to upgrade CBIRF equipment through the Family of Incident Response Systems (FIRS) program.

Please explain the composition of CBIRF units in terms of both manpower and equipment.

Answer. The present Manpower Table of Organization (T/O) of CBIRF is:

Marine Officers	22
Navy Officers.....	7
Army Officers.....	1
Marine Enlisted.....	318
Navy Enlisted.....	25
Total.....	373

A T/O increase of 98 personnel has been approved to take place during FY-04. It will add 4 Marine Officers, 4 Navy Officers, 84 Marine Enlisted and 6 Navy Enlisted to the current T/O. Total strength will then equal: 471.

The total dollar value of CBIRF equipment is \$22 million. Of this, \$3 million is purely military equipment used for overseas deployment. The balance, \$19 million, is response equipment which is roughly 90% Commercial-Off-the-Shelf equipment that allows the CBIRF to operate autonomously or to operate with other domestic first responders.

Question. How many CBIRF units are there in the Marine Corps?

Answer. One. However, the single battalion can provide a full response unit to two separate, simultaneous events. The first response unit of 125 Marines and Sailors is on one hour alert. It can deploy via trucks within one hour of notification. It can be ready for air

deployment via military commercial aircraft within four hours of notification. The second unit will require about 4 hours to move out of Indian Head via truck and about 8 hours to be prepared for air embarkation.

Question. How are the CBIRF units incorporated into Marine Expeditionary Units (MEUs)? Does each MEU have CBIRF capabilities?

Answer: The Enhanced MEU NBC (E-NBC) Capability Set is a tailored set of over 40 pieces of equipment. This capability set was developed based on lessons learned and on CBIRF equipment successes. It provides the MEU commander a limited capability to address Weapons of Mass Destruction (WMD) and enhances his capability to detect and identify Toxic Industrial Chemicals/Toxic Industrial Materials (TICS/TIMs).

CBIRF elements are not incorporated in the MEUs. CBIRF can provide support directly to the MEU if directed. CBIRF, in conjunction with Marine Corps Systems Command (MARCORSYSCOM), provides a training package on Consequence Management to each MEU prior to its deployment. MARCORSYSCOM provides contract personnel to conduct the technical training for the equipment that is included in the E-NBC Capability Set. CBIRF personnel focus on the tactical employment of these assets.

In addition, CBIRF provides all the medical training for the MEU personnel involved in the NBC mission.

Question. What are the lessons learned from recent deployments of CBIRF? Have these lessons learned been promulgated to other Services?

Answer. CBIRF has conducted both operational and training deployments. The key operational deployments have been in support of restoration of the US Capitol office spaces and in support of National Special Security Events (NSSEs).

The key lessons are the requirement for a well balanced, task organized, flexible force that can respond to very wide range of mission taskings from the incident commander, who is in almost all cases, a civilian. While on Capitol Hill, CBIRF conducted biological sampling operations, moved 12 tons of contaminated mail and completely cleaned out a Senate office. Bio Sampling was a mission CBIRF had trained for, although on nowhere near the scale it was executed. The other two missions had never been anticipated or trained for. The key to success was a balanced force that had the logistics, command and control, technical expertise and thorough familiarity with Personal Protective Equipment (PPE) and Incident Command System. CBIRF was able to meet all civilian PPE and safety requirements dictated by the incident commander.

Subsequent operations have been preposition operations in support of security for special events. These have validated CBIRF's basic operational concepts but highlighted the need for large numbers of personnel trained to enter a contaminated area and then extract contaminated victims. In particular, the full response training at the Capitol prior to the 2003 State of the Union Address was invaluable in demonstrating the mission enhancements gained from pre-positioned equipment and personnel.

We have shared our lessons learned with all those military and first responders who attend the EOD and law enforcement seminars we conduct quarterly. In addition, we train monthly with local fire and EMS organizations and work with the community specific command and control structures to insure what we have learned is passed on.

Finally, we host a monthly Technology Review Board specifically to examine lessons learned and seek new technology to assist with the mission. Standing members of this board included the National Guard CST Equipment/Training Officer, US Coast Guard Strike Team Representatives,

and local and state first responder agencies.

Question. The Committee understands that the Marine Corps is engaged in an effort to upgrade the equipment used by CBIRF units. Please explain the operational requirements for this program.

Answer. The initial requirements for CBIRF can be found in its Operational Requirements Document (ORD) of 1996. Since its inception, CBIRF's missions have expanded as the unit matured and new and differing threats have emerged. CBIRF, has a new Mission Statement signed by the Commandant of the Marine Corps in January 2002. A Universal Needs Statement (UNS) was approved in January 2003. The basis of the UNS was developed in the CBIRF Research, Development, and Acquisition Plan (Approved in November 2002) that provided a detailed analysis of the CBIRF mission areas and capabilities that the unit needs to be mission effective. The approved UNS identified seven mission areas for CBIRF: Reconnaissance, Decontamination, Force Protection, Medical, Urban Search and Rescue, C4I, and General Support. Informally, force protection has been split into personal protective equipment and anti-terrorism force protection. In general, FIRS pursues an evolutionary approach, upgrading capabilities with the best available technology as threats and missions change or previous systems reach the end of their service life.

Question. What investments are proposed in the fiscal year 2004 budget request for the Family of Incident Response Systems (FIRS) to enhance CBIRF capabilities? Over the Future Years Defense Program (FYDP) ?

Answer. CBIRF has received approval of a force structure increase of 98 Marines and Sailors. These personnel will allow CBIRF to increase the operational capabilities and endurance of their two Incident Response Forces (IRF). A complete set of GOTS and COTS individual equipment will be needed for the additional CBIRF members.

Response time is critical to the effectiveness of CBIRF to react to a terrorist incident. To improve deployability, additional investment will be applied to procuring additional equipment to have equipment staged for force deployment by ground or air. Over the FYDP, a complete third set of CBIRF response equipment will be procured to be used for operational training. This will allow the two deployable equipment sets to be kept at 100 percent operational readiness status. Additionally, the airdeployable set will be packaged for transport by military or commercial aircraft. This will significantly reduce response time and enhance operational readiness. This course of action is based on an analysis conducted when CBIRF was brought under the 4th Marine Expeditionary Brigade--Anti-Terrorism (4th MEB-AT).

Deployability and safety will be enhanced with the FY04 procurement of specially configured buses that will allow the IRFs to deploy in contiguous sub-elements and allow mission planning and briefings to be conducted moving to an incident site. Presently, the IRFs are transported in box vans, 15 passenger vans, and standard school buses that do not have sufficient space for individual response equipment.

Starting in FY 2004 and continuing over the FYDP, the creation of a limited stockpile of scarce consumables and long lead-time items will increase CBIRF's operational depth and enhance mission reconstitution capabilities. Previous limited resourcing has not sufficiently provided equipment depth required for resupply and operational reconstitution. The commercial market for some items, such as mask filters and OSHA Level A suits, is being overwhelmed by governmental agencies at the Federal, state, and local levels. Based on lessons learned from CBIRF's response to the anthrax attacks and Operation Nobel Eagle, FIRS will

move away from the ``just-in-time'' commercial supply paradigm for select items to one of ``on-hand-supply'' for operational depth. This requires investment in additional equipment.

Commercial investments in R&D are creating new and improved capabilities that enhance the performance of existing technologies. An example, the Chem Pro 100 is completing Foreign Comparative Testing (FCT). Depending on the outcome of that test, this COTS detector could improve CBIRF's reconnaissance mission capability enhancing the detection of TICs/TIMs.

New and improved versions of the CBIRF's existing equipment makes CBIRF COTS equipment obsolete. Recapitalization investment must be available to take advantage of these technological breakthroughs. For example, the improved MultiRAE detector provides additional capability and remote sensing. Investment would be used to procure this technology thereby improving CBIRF's remote sensing capability. The FIRS program office must be in a position to take advantage of rapidly emerging technological improvements to recapitalize CBIRF equipment that has been in their inventory since 1997.

The FIRS program office is an active participant with the Technical Support Working Group (TSWG) and has resourced a number of efforts that are coming into maturity. As these efforts mature, the FIRS program office will procure them for CBIRF. In FY 2004, the Chemical Resistant Drinking Tube and an improved heat stress calculator should be available for procurement.

Question. What technologies are being pursued to support the FIRS program in the Marine Corps Research and Development funding lines?

Answer. Technologies pursued in the FIRS program line support the eight commodity areas defined for Marine Corps Weapons of Mass Destruction (WMD) Incident Response Forces: Reconnaissance, Decontamination, Medical, Anti-Terrorism Force Protection, Personnel Protective Equipment (PPE), Search and Rescue, C4I, and General Support. Each project is relatively small, no more than moderate risk, and widely coordinated with the Services, Federal Agencies, and applicable DoD programs. The Marine Corps has historically resourced the CBIRF, now FIRS, RDT&E funding line at a modest level, about \$1 million per year. In fiscal year 2004, FIRS is budgeted to receive \$1.9 million. With such a limited budget, the FIRS program maintains a high activity level through teaming and cost sharing.

In the area of Search and Rescue, FIRS supports the demonstration and evaluation of COTS and emerging (TRL 6 or higher) technologies for victim location and extraction from a multi-hazard environment, e.g., collapsed structure and chemical contamination. These include infrared, ultra-violet, acoustic, electromagnetic sensors for assessing structural hazards and locating casualties. Additionally, FIRS participates with the joint program office, government labs and universities for the demonstration and evaluation of robotic systems applied to search and rescue.

In the area of PPE, FIRS participates with the TSWG, Soldier Biological Chemical Command (SBCCOM), and NIOSH for the development and testing of drinking tubes for commercial positive pressure respirators (Self-Contained Breathing Apparatus (SCBA) and Powered Air Purifying Respirators (PAPRs)). Additionally, FIRS participates with NAVAIR and TSWG in the assessment of respiratory and heat stress loads experienced when conducting consequence management related tasks and mission profiles and the development of a heat stress calculator for use with OSHA Level A and Level B protective postures. Finally, FIRS is investigating the effects of breathing high flow rates (up to 115 LPM)

and toxic industrial chemicals on GOTS and COTS filters in association with NIOSH, TSWG, SBCCOM and the commodity area manager (CAM) for Individual Protective Equipment. As a side note, CBIRF has served as a test unit for both Joint Lightweight Integrated Suite Technology (JSLIST) Block 1 Glove and the Joint Service General Purpose Mask (JSGPM).

In the Medical commodity area, FIRS is supporting the initiatives of International Task Force 45 (ITF 45) which is chaired by CBIRF. FIRS supports the development of a Mass Casualty Ventilation System for use with civilian casualties in contaminated environments. Furthermore, FIRS supports the collaborative development of a mass casualty training protocol with Defense Research and Development Canada and TSWG.

In the area of General Support, FIRS is supporting the assessment of several mobility systems to improve the safety and speed of CBIRF's deployment to an incident site and CBIRF's mobility around the hot zone of an incident. This includes modified commercial vehicles, all-terrain vehicles, and personal transporters. The intent is to increase the endurance of the unit by reducing the physical exertion required to maintain a high casualty extraction sortie rate.

In the reconnaissance commodity area, FIRS leverages the DoD sponsored Small Business Innovative Research (SBIR) program to pursue non immunoassay based biological detection and class based identification, individually worn sensors, an improved field analysis capability. Current FIRS sponsored SBIR topics include: Individual Bio Sensor/Sampler, Multi-TIC Colorimetric Badge, Disposable Chemical Detector, Extending the Life of Bio Sensors with Dendrimers, Microorganism Imprinted Polymers, Field Chemical Analytical Tool, Multi-Mission Chemical Sensor, and MEMS-based Microcantilever Chemical Sensor. Although funding for phase I and phase II SBIRs are centrally funded and approved by the OSD sponsored SBIR program, FIRS supports the program management, technical oversight and transition of the programs. FIRS participates in the U.S. Army Chem Bio Defense Tech Base program in the topic of Fluorescently Labeled Virus Probes for non-immunoassay based bacteria detection. FIRS supports the testing of lightweight, low cost, COTS and emerging chemiresistive and chemicapacitive polymer-based chemical sensors. FIRS supports the development of an automated M256 detector kit reader in cooperation with SBCCOM. FIRS R&D supports the development of rapid analytical methods for field use of Gas Chromatograph/Mass Spectrometer systems.

In the decontamination area, FIRS supports improvements and seeks enhanced capabilities in mass casualty decontamination systems. These improvements will increase throughput of civilian ambulatory and non ambulatory casualties through the demonstration of COTS and emerging systems such as tents, water heating, collection and recycling systems. This effort in particular differs significantly from the efforts underway in more traditional operating forces. These improvements focus on decontamination in an urban environment for civilian casualties with a significantly wider age and health range than traditional military decontamination systems and procedures are designed.

Advance Amphibious Assault Vehicle (AAAV)

Question. The fiscal year 2004 budget request includes \$97.9 million for Procurement, Marine Corps to complete funding for nine System Development and Demonstration (SDD) prototypes of the AAAV. The fiscal year 2002 Annual Report of the Director, Operational Test and Evaluation indicates that amphibious operations testing has been

repeatedly postponed because of poor performance in Developmental Testing relating to ocean operations, and transiting to surf zones. Also, operating sequentially on water and on land has not been demonstrated. Once fielded, the AAV will replace AAV7A1.

General, please describe the status of the AAV program. The Committee understands that the Marine Corps is presently completing System Development and Demonstration (SDD) prototype vehicles that will be provided to the Director, Operational Test and Evaluation for testing.

Answer. The AAV is currently in the Systems Development and Demonstration (SDD) acquisition phase (formerly called EMD). The Prime Contractor is General Dynamics Amphibious Systems in Woodbridge, Virginia. Testing of the three first generation program definition and risk reduction (PDRR) prototypes is ongoing. Integration and assembly of second generation SDD prototype vehicles began in fiscal year 2002 and is ongoing. An operational assessment with four prototype vehicles is scheduled for early fiscal year 2005 to support the Milestone (MS) C, Low Rate Initial Production (LRIP) decision planned for September 2005. The AAV program is on schedule and within budget.

Question. What are the results of AAV testing so far?

Answer. Extensive testing of first-generation, program definition and risk reduction (PDRR) prototypes continues. Accomplishments to date include the following:

The AAV PDRR prototypes have performed approximately 4,900 miles of land mobility testing (equivalent to nine vehicle years) and 2,270 hours of water testing including the conduct of operations with the amphibious ship USS Anchorage (LSD 36) to execute static and underway launches and recoveries from the ship and successful maneuvering within the well deck. Firepower testing of PDRR prototypes demonstrated that the prototype design met the ORD requirement for accuracy during Firepower Developmental Testing. Numerous design changes have been incorporated into the second-generation, SDD prototypes to improve the AAV design in the areas of vehicle performance and troop comfort. Testing of the SDD prototypes will commence in fiscal year 2003. The program is currently on track for demonstrating all land and water mobility Key Performance Parameters (KPPs).

Question. Please comment on the DOT&E 2002 report which indicates that the amphibious phase of early operational testing has been postponed due to performance of vehicle.

Answer. After careful consideration, and study of other program testing profiles, it was determined that the conduct of an amphibious Early Operational Assessment (EOA) on first-generation prototype vehicles this early in the program was, not as valuable as performing additional developmental testing on the program definition and risk reduction assets with second-generation SDD components. Additional developmental testing will enable the program to achieve early test lessons learned information as it continues to mature the SDD components. An operational assessment is planned for fiscal year 2004 with the more mature, second-generation SDD prototypes. The testing is planned to coincide with the completion of the first draft of the tactics, techniques, and procedures that are being developed for high speed open ocean transport of Marines using AAVs.

Question. What specifically will be accomplished with fiscal year 2004 funding?

Answer. The fiscal year 2004 funding for the AAV includes the following for PMC and RDT&E:

PMC funding is budgeted for Special Tools (ST) and

Special Tools Equipment (STE) in the amount of \$97.9 million. The funding will be used to procure from General Dynamics Land Systems (GDLS) and major subcontractors required materials, services, personnel and facilities to design, fabricate, manufacture or procure, and install and proof ST/STE that is unique and specific to the AAV program. ST/STE will be used to manufacture production AAVs during Low Rate Initial Production and Full Rate Production phases of the AAV acquisition program.

RDT&E in the amount of \$240.7 million will be used for the following: continued design development, manufacturing planning, and producibility design enhancements of the AAV(P) and AAV(C) designs; the AAV survivability program; fabrication and delivery of SDD prototypes; testing of PDRR and SDD prototypes; development of AAV training devices and simulators; development of AAV training courseware; and completion of Ballistic Vulnerability Testing of program definition and risk reduction prototypes.

Question. What is the fielding plan for the AAV? How many of these vehicles does the Marine Corps plan to acquire and how long will it take to replace the AAV7A1?

Answer. The delivery schedule for AAV is depicted below with a total of 1,013 vehicles. Full operational capability (FOC) is scheduled for FY 18.

FY05.....	1
FY06.....	0
FY07.....	9
FY08.....	19
FY09.....	28
FY10.....	75
FY11.....	105
FY12.....	120
FY13.....	120
FY14.....	120
FY15.....	120
FY16.....	120
FY17.....	115
FY18.....	61

Lightweight 155MM Howitzer

Question. The Lightweight 155mm Howitzer (XM 777) is the Marine Corps' and the Army's next generation 155mm towed howitzer. It will replace the M198 towed artillery piece. The XM 777 weighs about 10,000 lbs. compared to 16,000 for M198; two can fit into a C-130 aircraft. The Marine Corps serves as the DOD lead for developing the gun, and the Army leads development of the digital fire control system. The Marine Corps budget request includes \$111.5 million in fiscal year 2004 to procure 60 guns. The decision to approve full rate production is scheduled for beginning of fiscal year 2005. The program total includes \$784.4 million to produce a total of 377 guns.

General, please describe for the Committee the state of development of the Lightweight 155mm Howitzer.

Answer. The Lightweight 155mm Howitzer (LW155) had a successful Milestone C decision last November by the Assistant Secretary of the Navy (Research, Development and Acquisition). This decision authorized

the award of a two-year multi-year contract for the low-rate initial production (LRIP) phase. During this LRIP phase the Marine Corps is ordering a total of 94 howitzers--34 in FY 2003 and 60 in FY 2004 with deliveries commencing about a year after placement of orders. The prime contractor is preparing for production and placing orders with their suppliers. More than 70 percent of the weapon will be produced in the US with final integration and assembly occurring in Hattiesburg, MS. The weapon is performing well in the ongoing reliability growth and corrosion testing, and we have taken extraordinary steps to integrate the testing and production of the basic weapon with the Army funded digital fire control effort. After this two-year LRIP phase, we expect the Marine Corps and the Army to jointly procure M777A1 howitzers (guns with integrated digital fire control). Support for the program is strong within both Services and we are nearing completion of an agreement which will continue cooperation through production with the United Kingdom and Italy.

Question. One of the main management problems in this program has been establishing production facilities in the US to produce ``production representative guns'' for testing. Have these problems been resolved? Please explain.

Answer. Yes, those issues have been resolved. We have produced two pilot production howitzers using the US production facilities. This pilot production effort has confirmed the supply chains capability to produce the LW155 and extensive testing of these guns has been very successful. More than 70 percent of the work content for production guns will be accomplished within the US with final integration and assembly to occur at Hattiesburg, MS. Low-rate initial production howitzers are currently being produced. These fully ``production representative'' howitzers will be used for the final operational test next summer.

Question. How is testing proceeding? The Committee understands that the weapon has had problems, notably with titanium components used to reduce weight. Comment on these problems, and the steps the Marine Corps has taken to solve them.

Answer. Testing has been progressing very well. The fact that the program achieved a successful Milestone C is evidence that the design is sound and the weapon meets requirements. Prior issues with cracks, generally around weld locations in some components (spades, trails, travel locks) have been resolved by strengthening those areas and in many cases eliminating the welds altogether by using castings. The program conducted a rigorous operational assessment (OA) over a 6-8 week period using both soldiers and Marines and was assessed by independent evaluators from both Services. During that OA over 5000 rounds were fired and the weapon was towed over 1000 miles with no evidence of structural failures. Additional structural improvements have been incorporated onto the pilot production guns as have more than 40 castings. These castings have increased the strength of the weapon even further by significantly reducing the number of welds. Strength of design testing on pilot production weapons was very successful.

Question. The Committee is aware that the Engineering Manufacturing and Design guns used for testing did not incorporate improvements, and were not production representative. Have production representative guns that incorporate design improvements yet been produced to complete testing?

Answer. Yes. The two pilot production guns that incorporate design improvements were built by the actual production team. The first pilot production weapon has passed strength of design and accuracy testing

and is currently undergoing rigorous reliability growth testing at Yuma Proving Ground. The second pilot production weapon is being used to support the development and integration of the pre-planned product improvement digital fire control (known as Towed Artillery Digitization or TAD). Low-rate initial production of the howitzer is well under way and the initial deliveries in early FY04 will be used for first article testing, production qualification testing, and a joint operational test to support the full-rate production decision.

Question. What is the fielding plan for the Lightweight 155mm Howitzer in terms of both the number of guns and funding over the Future Years Defense Program?

Answer. The Marine Corps has a requirement for 380 systems and will achieve an initial operational capability (IOC) in FY05 and a full operational capability (FOC) in FY08. The Marine Corps program is funded for 377 systems. The Army has a requirement for 368 systems with an IOC in FY06. Currently 227 for the Marine Corps are funded in the FYDP.

BUDGET PROFILE
(\$ in millions)

	FY03	FY04	FY05	FY06	FY07
USMC Bud Req.....	62.0	111.5	175.5	177.1	7
Army Bud Req.....	--	5.0	51.1	100.7	13
USMC Quantity.....	34	60	110	120	
Army Quantity.....	--	--	27	54	

Question. The Marine Corps plans to begin fielding the XM 777 in fiscal year 2005, at least one year before the Army completes the digital fire control system. Why did the Marine Corps chose to incorporate digital fire control as an upgrade to the Lightweight 155mm Howitzer rather than including it as part of the initial capability?

Answer. The Marine Corps already had an urgent need to replace its existing, heavy and aging M198 155mm towed howitzers with the Lightweight 155mm Howitzer. It is anticipated that the extensive use of the M198 in Iraq will further diminish its remaining life making replacement with the LW155 even more time critical to avoid significant rebuild costs for the M198. The urgent operational requirement to deliver a new, more capable artillery system to the fleet as soon as possible, even without digital fire control, supersedes any benefits from delaying the initial fielding. The weapon has a much longer lead-time than the digital fire control, and the initial Marine Corps weapons will include all of the interfaces necessary to integrate the digital fire control at a later date. As a result, when the digital fire control becomes available early in FY 2006, retrofit of the howitzers already fielded will be rapidly and easily accomplished.

Question. Is the engineering and design, and mounting hardware complete to accommodate the digital fire control system when it becomes available?

Answer. Yes. The engineering and design of the mounting hardware is complete and it is currently undergoing tests. The pilot production gun, undergoing strenuous reliability growth testing at Yuma Proving Ground, has all of the digital fire control hardware on the weapon as it is being tested. To date the hardware and its mounting is performing superbly.

Question. Does emplacement time improve on the Lightweight 155mm Howitzer with the digital fire control system compared to the initial capability which relies on iron sights and traditional methods of emplacement?

Answer. Traditional methods of emplacement require that the battery position be prepared with survey. This takes up to 20 minutes before the guns arrive in position. Using traditional methods, howitzers must be oriented for direction sequentially, which can take another 10-15 minutes. Finally, it can take 2-3 minutes (included in the overall 10-15 minutes' time) to emplace each individual LW155 using traditional methods (vice 6-7 minutes for the M198). With digital fire control there is no requirement for initial survey. Most important, all howitzers use their onboard capability to orient simultaneously. This allows a battery of six digitally equipped LW155s to emplace in 2-3 minutes, versus 10-15 minutes without digital fire control. This reduced time to be ready to fire can be critically important to troops in need of life-saving fire support.

Internally Transportable Vehicle

Question. The Internally Transportable Vehicle (ITV) program was a Marine Corps led joint program with the U.S. Special Operations Command to field a family of light ground combat vehicles. The vehicle was intended to be internally transportable in heavy lift helicopters as well as the MV-22 and CV-22.

Because the vehicle, which was a non-developmental item, was not tactically employable, the Marine Corps cancelled the program. Despite a valid operational requirements document (ORD), the Marine Corps does not have a current program, to replace the aging IFAV attack vehicle.

What is the status of the Internally Transportable Vehicle program? Has the program been terminated?

Answer. The ITV program is still a valid, active program and is currently engaged in Milestone A activities, Concept and Technology Development.

Past ITV candidates pushed the dimensional envelope of V-22 to meet the requirements for HMMWV-like ground mobility. Although these ITVs fit inside V-22, the fit was too tight and the vehicles were too heavy for rapid ingress/egress in combat scenarios. The program was not cancelled at that point, but no production contract was awarded. The Marine Corps began reviewing and modifying the ITV requirement based on the lessons learned from the failed efforts.

The bottom line with the ITV requirement is that trade-offs are required between vehicle size and weight. Smaller, lighter vehicles allow for rapid deployability inside a V-22, but deliver less ground capability. Larger, more robust vehicles allow for greater payloads/heavy guns but cannot be internally transported within the V-22.

Question. Does the Marine Corps have an operational requirements document (ORD) to support procurement of the ITV or a similar vehicle?

Answer. The ITV program is based upon a Joint Operational Requirements Document (JORD) written by the Marine Corps Combat Development Command (MCCDC). Change 1 to the ITV JORD was signed in April of 2000, and Change 2 is expected to be signed in July 2003. The ITV requirements seek a mobility platform that is deployable inside the V-22 and carries heavy machine guns and a three man crew. The ITV will support a variety of missions to include airfield and port seizure, Tactical Rescue of Aircraft or Personnel (TRAP), non-combatant evacuation operations (NEO), limited objective attacks, and

reconnaissance and surveillance missions.

Question. What system(s) will the Marine Corps use in place of the cancelled ITV?

Answer. The Marine Corps has not cancelled the ITV program and will continue to pursue a vehicle that is deployable inside the V-22.

Question. Is the replacement vehicle for the ITV a nondevelopmental item?

Answer. The ITV is currently pursuing a non-developmental acquisition strategy. The IFAV pursued a Commercial-Off-The-Shelf acquisition strategy.

Question. Is the alternative to the ITV domestically produced?

Answer. The ITV requirement is still being revised. No vehicles are formally being considered for the program at this time.

The IFAV was sold to the Marine Corps by Advanced Vehicle Systems of Washington, D.C. via the GSA schedule. Fifty-five percent of the IFAV is manufactured in Austria and 45 percent is manufactured and assembled in America.

Question. How much funding is included for the ITV replacement in the fiscal year 2004 budget request in Procurement? In Research and Development?

Answer. The ITV program has no funding in FY 2004 in Procurement or Research and Development lines. The IFAV program has no funding in FY 2004 in Procurement or Research and Development lines.

Modular Weapon System

Question. The Marine Corps describes the Modular Weapons System (MWS) as its highest priority long-term modernization program. The MWS will replace the 1980's era M16A2 rifle. This program includes weapon modifications such as rails for integration of various optics and laser aiming devices. The acquisition objective for this program is just over 65,000 rifles, of which 1,500 have been thus far fielded.

What is the fielding plan for the Modular Weapon System?

Answer. Fielding to 1st and 2nd Marine Divisions will begin this month (April 03). Fielding to 3rd and 4th Marine Divisions will begin in June 03. Quantity will be 1,500 per month for 12 months. The future fielding plan is still under consideration.

Question. Compared to the Marine Corps' active component strength of 175,000 personnel, the plan is to acquire about 65,000 MWS rifles. What is the basis for the acquisition objective for this program?

Answer. The MWS gives the warfighter the ability to mount a wide variety of mission-essential accessories to the weapon platform. The only Marines that need to be able to mount accessories (or even have accessories to mount) are Marines in the Ground Combat Element (GCE) and a very few select supporting establishments. Because units outside the GCE have neither the accessories to mount nor the need to mount accessories, it was decided to procure the MWS only for the GCE at this time.

Question. What is the cost of the Modular Weapon System in the fiscal year 2004 budget request? Over the Future Years Defense Program?

Answer. The price per unit of the M16A4 is below. The M4 carbine is undergoing final reliability and endurance testing and is expected to be fielded to select units in FY 2004. Projected per unit cost is \$1000-\$1100.

FY03.....	\$839.19
FY04.....	846.06

FY05.....	872.94
FY06.....	889.70
FY07.....	906.15

FY 2004 MWS FYDP profile (\$M*):

FY03.....	23.9
FY04.....	13.7
FY05.....	10.1
FY06.....	10.0
FY07.....	0.1
FY08-09.....	0

* Includes first destination transportation costs.

Marine Corps Depot Maintenance

Question. Marine Corps fiscal year 2003 funding for force operations depot maintenance is \$141 million which addresses 90 percent of the stated requirement. The fiscal year 2004 funding declines to \$122 million, covering only 67% of the requirement.

General Hagee, why has the Marine Corps reduced depot maintenance funding for fiscal year 2004?

Answer. FY04 depot maintenance funding is not inconsistent with prior years. The Marine Corps must balance the competing priorities of equipment maintenance, equipment modernization, and infrastructure upgrades within a fiscally constrained environment.

Question. What will be the impact on the work force at the depots?

Answer. Reduced workload may result in the loss of skilled personnel through termination of temporary and term appointments and through early retirement incentives. Replacing personnel with specialized skills may require significant ramp-up time. However, due to external factors (e.g. additional workload and funding that will flow to the depots from reconstitution requirements associated with the Global War on Terrorism), we believe the probability of the budgeted reduction of the personnel to be fairly low. If there were no additional funds provided in FY 04, numerous options are available and will be pursued prior to instituting any adverse personnel actions.

Question. How will this reduced funding level impact readiness?

Answer. While there is no apparent impact to immediate readiness, there is risk that equipment readiness in the future will decline if we continue to delay repairs. Additionally, by not rotating equipment through depot level maintenance, there is also a risk that future repairs will cost more.

Training Area Encroachment

Question. In June 2002, GAO reported that DoD lacks a comprehensive plan to manage encroachment on training ranges. The GAO reported that the Defense Department's own data demonstrate that the military is ready to fight and that DoD has not documented to what extent, and at what cost, environmental laws affect the military's ability to train.

To what extent has the Navy separately, or as part of a DoD effort, attempted to document the effect of encroachment on the Navy's ability to train and at what costs?

Answer. The Department of the Navy's Federally Funded Research and

Development Center, the Center for Naval Analyses (CNA), performed three studies to help us quantify encroachment impacts.

In the first study CNA looked at encroachment impacts at the unit level. They found that, Navy-wide, SORTS scores (Status of Readiness and Training--the standard readiness measuring system used throughout DoD) aren't able to capture the effects of the occasional degradation in training due to encroachments. Simply put, in light of the myriad of parameters and training events that go into Fleet SORTS scores, the occasional encroachment on a training event simply doesn't show up. However, when CNA looked at individual units training on installations with environmental restrictions, they found training readiness scores were significantly degraded in particular mission areas.

Following this look at unit-level impacts, CNA looked at effects of encroachment on battle group level exercises that train to the operational level of war. Specifically, they looked at the impacts of encroachment on the major Fleet exercises known as Fleet Exercise (FLEETEX) and Joint Task Force Exercise (JTFEX). They found that encroachment on these exercises is not immediately apparent upon observing an exercise because the workaround for a specific restriction is built into the exercise during the planning process. By following a Fleet exercise from its early development stages through actual execution, they found several events altered or eliminated during the planning cycle as a result of environmental restrictions. CNA also found examples where weapons employment during the training exercise was inconsistent with employment in wartime due to airspace restrictions along the U.S. east coast.

In the third study, CNA in conjunction with the Office of the Deputy Undersecretary of Defense (Readiness), approached the study of encroachment from the installation (range) perspective. They focused on a particular training range and developed a methodology to characterize the physical assets; for example, airspace and groundspace the range needs in order to fulfill its training mission; how to objectively assess the degree to which these assets are restricted; the reasons for these restrictions; and their ultimate impact on the training of combat forces. We feel this is an important step in addressing the overall issue of range management, of which encroachment is one component. The methodology helps us characterize encroachment in a general perspective, and shows how we can look at it in the context of other types of restrictions and focus our efforts accordingly.

The Commanding General, Marine Corps Base Camp Pendleton, California sponsored a twophased study at a cost of \$200,000 to establish quantitative data that examined encroachment impacts on the capability of the installation to support Marine Air Ground Task Force operational readiness requirements. The first phase was completed in January 2002, and the second phase is complete with the results pending.

Question. To what extent does the fiscal year 2004 budget request provide funds to pay for the costs associated with encroachment?

Answer. The Department of the Navy budgets the appropriate funding required to comply with existing environmental laws applicable to installations, ships, and aircraft. The Navy does not specifically budget for the cost of encroachment.

Consideration of Operating Costs During Acquisition Process

Question. One of the recurring challenges the Navy and Marine Corps face in managing the Operation and Maintenance accounts is the rising

cost of operating equipment.

In February 2003, the General Accounting Office reported that the military services pay little attention to a system's operating and support costs during development when there is the greatest opportunity to positively affect these costs. Instead, the Services focus on technical achievements, featuring immature technologies during development and fielding and then pay the price down the road when operating and support costs greatly exceed expectations.

Even though operating and support costs make up, on average, about 72 percent of the life cycle of a system, the operators and maintainers have little input to the acquisition process.

Mr. Secretary, do you believe the GAO's report is an accurate assessment, and if it is, what do you propose as process improvement to gain control of total ownership costs of Navy equipment?

Answer. The Department of the Navy recognizes operating and support is normally the largest cost driver in the total life cycle of a system and that 60-70 percent of those costs are determined by decisions made early in the acquisition process. Therefore, to optimize those costs, the most effective methodology is to address operating and support costs early in the acquisition process, ideally during development. These efforts are then followed by subsequent technology and process improvements during the life cycle of the system. The following are concrete examples of the Department of the Navy's continual effort to reduce operating and support costs:

Joint Strike Fighter (JSF) Program projects a 40 percent reduction in operating and support costs across the projected program life cycle, compared with replacement aircraft ownership costs.

CVN-21 is developing a new nuclear power plant, new integrated warfighting system, and all electric auxiliaries, which are predicted to reduce manning by some 500 to 800 billets.

The future surface combatant, DD(X), is the first ship designed from the keel up to embrace total ship automation and reduced maintenance. This allows these ships to have predicted manning at less than one-third that of current destroyers.

F/A-18 E/F, for a number of years has executed innovative performance based logistics contracts, which have reduced total ownership costs.

The Smart Ship Program is implementing numerous cost saving initiatives on existing platforms that will have a dramatic effect on manning (largest operation and support cost driver for ships). The initiative in the area of food service, distributed engineering, ship control, navigation and damage control systems are allowing billets to be removed from ship manning documents today and will continue into the future.

Reducing operating and support costs through disinvestments, such as the early removal of Phoenix missiles from the ordnance inventory. New weapons systems coming to the fleet, such as the F-18 E/F, are much more versatile and can perform multiple missions that previously required multiple platforms. The Navy is driving toward fewer and more capable multi-mission weapons systems that minimize operator interface and maintenance requirements, thus increasing warfighting capability while driving down operating costs.

In addition to the examples cited above, the Department of the Navy

has embraced the principles of Total Life Cycle System Management (TLCSM). TLCSM advocates increased involvement from product developers, maintainers and operators early in the acquisition cycle in order to improve reliability and maintainability. This interaction will ultimately reduce total operating costs. The Department of the Navy has recently established a Deputy Assistant Secretary of the Navy for Logistics with a primary mission to address TLCSM.

Question. In what ways, specifically, is the Navy pursuing the reduction in total cost of ownership in ``Sea Enterprise'' a supporting operational initiative of SEAPOWER 21 designed to increase efficiencies with the Navy?

Answer. The fundamental challenge facing the Navy is finding resources to meet recapitalization requirements for Sea Power 21. Sea Enterprise is the resource enabler of Sea Power 21. Sea Enterprise seeks to improve organizational alignment, streamline processes, refine requirements and create incentives for positive changes. Legacy systems and platforms no longer integral to mission accomplishment will be retired and Navy business processes will become more efficient to achieve enhanced effectiveness in the most cost-effective manner. With the assistance of industry advisors, Sea Enterprise improves the Navy's business practices as well as adds mechanisms to redirect savings from efficiencies to new platforms and systems.

Recognizing the opportunity presented by the early identification of means to lower operating costs in the acquisition process, the Navy has been focused on reducing total ownership costs for the past several years at all echelons. At the corporate level, Navy has established a Sea Enterprise Board of Directors (BOD), chaired by the Vice Chief of Naval Operations (VCNO) and the Assistant Secretary of the Navy for Research, Development and Acquisition (ASN (RD&A)). The BOD has specifically chosen ownership cost reductions as one of its top focus areas to aggressively pursue. There are multiple approaches to ownership cost reduction that Navy is pursuing, to include:

- Investment in newer, more reliable commercial technology to replace cost-inefficient components.

- Policy preference for ``performance based'' logistics contracts, whose total-life cycle focus is on reducing operating and support costs.

- Policy that business case analyses, targeting impact of total life-cycle affordability to own and operate must preface major weapon program decisions.

- Independent reviews of weapon system developments for the express purpose of determining progress towards logistics effectiveness and life cycle affordability.

- Retirement of older and inherently more costly to support weapons systems.

- Investment in information technology advancements (such as Enterprise Resource Planning) that promote cost visibility.

The role for Sea Enterprise is to ensure savings are optimized across the enterprise, information is shared across programs, and barriers to implementation are addressed at appropriate levels. Sea Enterprise formalizes a governance process to ensure execution of targeted efficiency initiatives.

Question. The Navy has established a ``Fleet Requirements'' organization in Norfolk. In what ways does that organization focus on reducing the cost of operating and maintaining the Fleet rather than new, unproven technologies?

Answer. The Department of the Navy recognizes operating and support is normally the largest cost driver in the total life cycle of a system and that 60-70% of those costs are determined by decisions made early in the acquisition process. Therefore, to optimize those costs, the most effective methodology is to address operating and support costs early in the acquisition process, ideally during development. These efforts are then followed by subsequent technology and process improvements during the life cycle of the system. For Fleet requirements, the Commander, U.S. Fleet Forces Command (CFFC) reviews the requirements, coordinates all FLEET responses and then sends one consolidated voice or position from the user to the OPNAV sponsor.

Antiterrorism and Force Protection

Question. Over the past three years, Congress has provided the Navy over \$5 billion for Antiterrorism and Force Protection (AT/FP) initiatives. The Committee's staff recently concluded a classified report of the Navy's efforts to mitigate the terrorist threats against the United States naval vessels and raised some concerns about the Navy's efforts. The review indicates that:

Efforts to develop effective programs to combat terrorism have been largely ad hoc, reactive and tied to major terrorist events;

There is no mission needs statement or requirements document for either ashore or afloat requirements and therefore no understanding of how the Navy wants to proceed with its program; and,

There is a perceived lack of guidance from the Navy leadership on the establishment of anti-terrorist capabilities.

Admiral Clark, what do you think about these general concerns raised by the staff's review?

Answer. The House Appropriations Committee's Surveys and Investigative (S&I) staff inquiry into the Navy's Antiterrorism and Force Protection (AT/FP) efforts was very thorough and it noted several of the critical issues on which the Navy is making progress. Antiterrorism/Force Protection continues to be one of our top priorities. The AT/FP budget has been used to develop a deliberate program to improve AT/FP afloat and ashore. As our program moves forward, recent advances include the validation of a comprehensive AT/FP Mission Needs Statement, complemented by the ongoing development of the Force Protection Mission Capabilities Package, an analytical tool which identifies future (afloat) AT/FP requirements and the resources that will be needed to acquire them. Effective October 1, 2003, I am aligning all major shore claimants under a single Echelon II command (Commander, Naval Installations), which will ensure that requirements are properly defined, and resources are programmed to support AT/FP efforts at our installations. My staff is coordinating a capabilities assessment process that incorporates both afloat and ashore requirements. The Navy will continue to use its Systems Commands (SYSCOMS) for development and acquisition of technology to support fleets in their AT/FP programs. However, better integration between the SYSCOMS is being coordinated thru the Systems Acquisition Lead Teams (SALT) process. The SALT process was established over seven months ago to ensure uniform Navy-wide program management for AT/FP issues. Navy AT/FP continues to move in the right direction, making visible progress in a number of key areas, and ensuring effective use of Congressional funding.

Question. Mr. Secretary, how would you rate the Navy and Marine Corps, overall, in terms of AT/FP preparedness?

Answer. The importance of maintaining a strong Antiterrorism/Force Protection (AT/FP) posture has been stressed at every level within the Navy. AT/FP and physical security awareness throughout the Service is high. We have put into place a training and education program that provides quality AT/FP training for our operators at the deck plates, as well as for the officers who lead them. Additionally, our Integrated Vulnerability Assessment program has been proven to effectively measure the overall successes of our program efforts, and conversely, to identify and prioritize our weaknesses, then facilitates corrective measures. Where needed, we have fielded an array of commercially available technologies to enhance the security of our waterfronts and flight lines around the world. Other focus areas include: Critical Infrastructure Protection, emergency preparedness, consequence management and participation in various Joint Service programs for installation protection and emergency response. The Navy Shore establishment is focused on Installation Protection (IP) in accordance with Joint programs/policy and participates in the Joint Staff Installation Pilot Program (JSIPP). Our Systems Commands (SYSCOMS) are coordinating, integrating and implementing Joint policy regarding shore facilities design, construction, modification and operations, as well as emergency response programs. Through the Systems Acquisition Lead Teams (SALT) process our SYSCOMS also facilitate integration of existing AT/FP programs related to CBRNE issues for base operations, security, medical, fire fighting, industrial safety and others. Given all of these efforts combined, I consider the Navy's level of preparedness to deter, defend, mitigate and respond to today's terrorist threat to be solid.

The Marine Corps is well prepared to execute its Antiterrorism/Force Protection (AT/FP) responsibilities. The nature of the threat requires a robust and continuously evolving AT/FP program. Personnel and resources for AT/FP continue to be a priority in our combat development process. For fiscal year 2003, the Marine Corps has either developed or sustained the following:

- United States Marine Corps organized, trained and equipped units capable of incident response, deterring, detecting, and defending against asymmetric threats against U.S. territories, populations and critical infrastructure.

- The 4th Marine Expeditionary Brigade (MEB) Antiterrorism (AT) to support commanders with rapidly deployable, specially trained, and sustainable forces for combating terrorism.

- A Chemical and Biological Incident Response Force (CBIRF) capable of deploying in response to chemical, biological, radiological, nuclear or high-yield explosive incidences.

- Rapidly deployable quick response forces to support United States Northern Command.

- Marine Emergency Preparedness Liaison officers organized by Federal Emergency Management Agency region.

- Enhanced First Responder training on Marine Corps installations as well as enhanced coordination with community-wide local authorities.

- Developed and implemented Electronic Security Systems (ESS) to include biometrics, access control, video surveillance and assessment.

Question. Admiral Clark, have you published guidance on the minimum anti-terrorism capabilities that should be present at the region, base and ship class level?

Answer. The series of instructions and publications published by the Department of Defense and the Navy (by the Secretary and myself) delineate Antiterrorism/Force Protection (AT/FP) program standards, and individual protective measures that ships, installations, and regions must be able to perform at escalating threat levels and Force Protection Conditions.

Additionally, I have published policy that includes tools and prioritized AT/FP requirements for the various categories of ships and aviation assets. Published staffing standards identify minimum capabilities and manpower needed to meet physical security and AT/FP requirements at our installations, including waterside, both at home and abroad.

AT/FP capabilities are developed and reviewed by my staff annually through a Mission Capabilities Assessment process designed to define future capabilities, and the resources needed to acquire them.

Question. Do you have an overall program plan for the development and acquisition of technology and staff for antiterrorism and force protection?

Answer. The overall plan for AT/FP technology acquisition is based on the need to take a systematic approach to AT/FP technology that will ensure the interoperability of individual AT/FP technology subsystems. Furthermore, we must ensure that this plan will allow force protection officers to tailor AT/FP solutions to the unique requirements of their own local command.

The Navy's AT/FP technology requirements for afloat units are developed through a series of programmatic analytical tools. The Combating Terrorism and Force Protection Mission Capability Packages determine the warfighting capabilities required to effectively counter the asymmetric threat. The AT/FP investment strategy uses these required capabilities to lay the foundation for an ``afloat technology roadmap''. We're also leveraging existing shipboard systems to establish an afloat AT/FP ``program of programs'' that are designed to deter, detect, classify, identify, deny, disable, and neutralize the asymmetric threat. The AT/FP viability of these programs is reviewed on a continuous basis within our Afloat AT/FP Working Group.

In October 2003 the Commander Naval Installations (CNI) will be established as the single echelon II command responsible for all shore installation programs. CNI will be responsible for AT/FP programs, and will work closely with Commander, U.S. Fleet Forces Command (CFFC) and Regional Commanders to ensure program requirements are properly defined. CNI will collaborate with CNO N46 (Ashore Readiness Division) to program required resources to meet AT/FP program needs. Implementation of AT/FP programs will be the responsibility of Regional Commanders, with support from selected Systems Commands. The Naval Facilities Engineering Command (NAVFAC) will centrally procure and install all physical security equipment beginning in fiscal year 2004. NAVFAC will also provide technical guidance to CNI and Regional Commanders for Emergency Management Planning, Chemical/Biological/Radiological/Nuclear/high-yield Explosive (CBRNE) programs, and Critical Infrastructure Protection programs.

The Navy's Staffing Standards are published in a Navy instruction and provide guidelines as to the personnel requirements for various positions and requirements. The Navy validates these requirements, and manpower needs and staffing requirements are adjusted based on this

metric and the needs of the Navy.

Question. Have you identified a central authority within the Navy for anti-terrorism programs, to include responsibility for program management, technical evaluation, acquisition and fielding to ensure that each fleet doesn't create it's own program?

Answer. The problem of alignment within AT/FP is one of my greatest concerns and one that is being addressed. To better align the program, I have assigned the Commander, U.S. Fleet Forces Command as the executive agent for CONUS AT/FP. Additionally, they are responsible for identifying all AT/FP requirements for the Navy. These requirements are documented and then forwarded to the Navy Staff for consolidation, validation, and procurement.

We have been working closely with our Systems Commands to determine the most effective way to manage the procurement of technology and other equipment to ensure program continuity. One of the difficulties in establishing a single central authority for AT/FP acquisition program management is that AT/FP technologies cut across the mission areas of multiple Navy acquisition communities. To place this office within only one of those organizations would hinder our ability to tap into the needed subject matter expertise at the excluded organizations. We are therefore exploring new organizational structures that will identify the AT/FP roles and responsibilities of each acquisition community while ensuring that the necessary cross-organizational collaboration occurs.

Question. Mr. Secretary, in fiscal year 2003 this Committee provided the additional funding to address anti-terrorism/force protection issues; the fiscal year 2004 request does not sustain this increase.

Do the lower amounts requested in fiscal year 2004 indicate that you have made sufficient progress in the AT/FP area so that the higher fiscal year 2003 funding level is no longer necessary or is this an affordability issue?

Answer. This is mostly an issue relating to the maturing of the Navy AT/FP program. Post-COLE and 9-11-01 supplemental funding has been used to meet valid requirements and was used effectively. However, the sheer volume of requirements generated after September 11th complicated the development of a firm program.

We believe there are sufficient funds in the fiscal year 2004 request to meet our needs. Our approach for fiscal year 2004 and out is to first conduct a bottom-up review of the baseline program, adjusting the program as necessary so that the right priorities receive funding. In some cases, this means that program elements previously funded may be used as offsets to fund new, higher priority requirements identified by Combatant Commands and Navy Component Commanders. The lower amount requested in fiscal year 2004 reflects this approach and our belief that the Navy AT/FP Program is approaching a steady state condition.

Product Quality Deficiency Reporting Systems

Question. Secretary, it is our understanding that the Navy's Air Systems Command--NAVAIR--is setting up its own Product Quality Deficiency Reporting (PQDR) system.

The Navy's Sea Systems Command--NAVSEA--already has a PQDR in place that is connected to the Defense Logistics Agency (DLA) and other services.

According to some DoD officials, NAVAIR is basically recreating the NAVSEA system at a cost of \$3 to \$5 million a year, with an additional

\$1 to \$2 million a year to operate the system and connect it to other Navy systems. These officials also say that NAVAIR could use the NAVSEA system and not incur the expense and effort of creating another database that then has to be connected to the NAVSEA system (GAO-01-923)

What is the justification for a separate NAVAIR Product Quality Deficiency Reporting (PQDR) reporting system?

Answer. NAVAIR is not developing a separate NAVAIR Product Quality Deficiency Reporting (PQDR) reporting system but rather creating a single entry point for the warfighter for all discrepancy reports that will seamlessly integrate with the NAVSEA PQDR database where appropriate.

The Naval Aviation Maintenance Discrepancy Reporting Program (NAMDRP) website should not be considered a stand-alone NAVAIR PQDR system. Rather it is a one-stop input point for all Naval Aviation discrepancy report submission and tracking of which Product Quality Deficiency Report (PQDR) is only one of ten reports. The NAMDRP web application is tasked with providing a single data entry point for all Naval Aviation discrepancy reports required by OPNAVINST 4790.2H consisting of:

- Engineering Investigations (EI).
- Hazardous Material Reports (HMR).
- Conventional Ordnance Deficiency Reports (CODR).
- Explosive Mishap Reports (EMR).
- Product Quality Deficiency Reports (PQDR).
- Technical Publication Deficiency Reports (TPDR).
- Aircraft Discrepancy Reports (ADR).
- Aircraft Baseline Discrepancy Reports (ABDR).
- Supply Discrepancy Reports (SDR).
- Transportation Discrepancy Reports (TDR).

The goal of the NAMDRP application is to accommodate the needs of the warfighter by providing a consistent and easy to use web application to simplify entry and tracking of all Naval Aviation discrepancy reports. Of these reports EI, HMR, CODR and EMR reports are currently in production with a warfighter user base of over 6500 users. PQDR, TPDR and ADR are currently in development for incorporation to the website with ABDR, SDR and TDR soon to follow.

Question. Do you believe it is an accurate assessment to state that NAVAIR could use the NAVSEA system?

Answer. The Naval Aviation Maintenance Discrepancy Reporting Program (NAMDRP) website is not a redundant NAVAIR version of the NAVSEA Product Quality Deficiency Reporting (PQDR) system. On the contrary, it is integrally linked to the NAVSEA PQDR system. Naval aviation PQDRs will enter through the NAMDRP system and then pass to the NAVSEA PQDR database. NAVAIR is currently and will continue to use the NAVSEA system as the central repository for all Navy PQDRs.

The process to seamlessly integrate and electronically pass Naval aviation PQDR data to the NAVSEA system is currently under development with the NAVSEA team. The decision to use a NAMDRP website front-end rather than the NAVSEA website was based on the desire to minimize the number of input websites used by the warfighter and to keep the submission of aviation discrepancy reports consistent for all the report types.

Question. What is the total amount included in the fiscal year 2004 request and subsequent budget requests to establish and operate the NAVAIR system? (Please provide data by year, by appropriation account, and by line item.)

Answer. The following chart shows the budget request for the PQDR portion of the Naval Aviation Maintenance Discrepancy Reporting Program (NAMDRP) website. (Dollars are in thousands)

Appropriation: O&M, N (BA-4)

FY04.....	\$343
FY05.....	298
FY06.....	261
FY07.....	261
FY08.....	261

The above figures include the following types of program costs:

- Website hardware, software and associated IT maintenance.

- Labor costs to develop and maintain website functionality.

- Travel, training and materials to support Fleet users.

- Fleet Help Desk support, user enrollment and metrics preparation.

- Clearinghouse support for NAVAIR users (metrics, training, clear/expedite process logjams).

The NAVAIR investment in developing and maintaining a NAMDRP input mechanism for Naval Aviation PQDRs is a small fraction of the total NAMDRP budget request. The NAMDRP website's function is to give fleet personnel a one-stop input point for all Naval Aviation discrepancy report submission and tracking. The Product Quality Deficiency Report (PQDR) is only one of ten possible discrepancy submissions that may be submitted via the NAMDRP.

Navy Personnel Reductions

Question. The Navy's active duty end strength of 373,800 requested in the fiscal year 2004 budget request is 1,900 personnel below the fiscal year 2003 authorized level of 375,700 personnel. The Navy Reserve end strength for fiscal year 2004 is 85,900 personnel, a decrease of approximately 2,000 Reservists.

Mr. Secretary, the Navy is the only Service downsizing personnel in fiscal year 2004. Please explain the reasons for the reductions in military personnel. Are these cutbacks in end strength driven by force structure reductions, i.e., the decommissioning of ships?

Answer. Navy's end strength numbers are determined and continually refined during a process that takes into account the current and future manning requirements of our ships, aircraft and associated supporting functional areas. Navy end strength is based on requirements that are largely force structure based. As older, more manpower intensive platforms are taken off line and replaced by more efficient ships and aircraft the requisite end strength decreases in concert.

The decrease in fiscal year 2004 end strength is the result of the net changes (commissionings/decommissionings) in the Navy's force structure.

Question. With the Navy playing such a large role in the Global War on Terrorism, why would you be reducing end strength and force structure rather than increasing it?

Answer. Current end strength authorization, with the flexibility you have granted to +3%, is sufficient to meet all commitments. Given our current and near term strength profile, we have seen no impact on

deploying battlegroups in fiscal year 2003 and do not anticipate any impact on fiscal year 2004 deployments.

In conjunction with the execution of our overall investment strategy, we continue to conduct extensive reviews focused on balancing current and future force operational requirements and capabilities, while operating within established fiscal constraints. In proposing the budget submission for fiscal year 2004, we determined that reducing the number of less capable, manpower intensive platforms would free valuable resources essential to future plans for enhancing transformational capabilities. The manpower associated with these force structure changes results in a smaller requirement.

Additionally, Navy has various efforts underway that are helping improve manpower efficiency and reduce future manpower requirements. Task Force Excel is exploring innovative techniques to improve how we train our Sailors. Sea Swap and Optimal Manning projects are finding ways to keep our Battle Forces at sea longer while also exploring potential areas to restructure crew manning. FORCENET is aimed at improving manpower efficiency by integrating warriors, sensors, networks, command and control, platforms and weapons into a networked distributed combat system. Sea Enterprise maintains core capabilities; optimizes investments; and applies selected business reforms to our organizations and processes. Sea Warrior is the enhanced assessment, assignment, training and education of personnel. We believe these initiatives, when completed, will yield increased capabilities, while permitting us to man our forces in the most efficient and economical manner possible.

Question. Does the Navy still have ``gaps'' in billets at sea? If so, why would you reduce personnel if you still have requirements to fill?

Answer. While isolated unit shortfalls exist, as of February 2003, Fleet manning stood at 99.0% or a shortage of 1,784 personnel. At this same point shore manning was 96.1%. We expect that personnel in training pipelines (who do not count as shore manning) will flow to the Fleet over the course of the rest of fiscal year 2003 and reduce this shortage to near zero by the end of the year. Based on historical trends and projections, we expect fiscal year 2004 to remain at these high levels in the 97-99% band.

Consolidation of the Military Personnel Accounts

Question. The fiscal year 2004 budget request recommends consolidating the six Guard and Reserve military personnel accounts with their respective active duty military personnel appropriations. The budget requested that the Reserves' personnel pay accounts be Budget Activity 7, and the National Guard's personnel pay accounts be Budget Activity 8 under the active duty accounts.

Mr. Secretary please explain the rationale for merging the pay accounts into one appropriation per Service.

Answer. Departmental budget guidance directed consolidation of active and reserve appropriations into the fiscal year 2004 President's Budget submission. Reserve Personnel Navy (RPN)/Military Personnel Navy (MPN) and Reserve Personnel Marine Corps (RPMC)/Military Personnel Marine Corps (MPMC) mergers are the first step in providing DoD greater financial flexibility in fighting the Global War on Terrorism (GWOT) and future conflicts. Benefits include:

- Expedited funding transfer between Active and Reserve accounts to meet operational requirements;

Greater flexibility during contingency operations;
and
Improved ability to manage changing end strength/
costs.

Given the degree of utilization of mobilized reserves in the GWOT and enhanced integration with Active forces under the total force concept, this consolidation would provide the necessary flexibility for the Department to more efficiently manage its overall resources to meet emerging and rapidly evolving military requirements.

Question. What level or degree of increased flexibility does the Navy gain from this consolidation?

Answer. Within Congressionally approved reprogramming thresholds, funds may be moved between Active and Reserve accounts without prior approval for formal reprogramming action, as is currently required. This will be particularly beneficial in view of the increased flexibility to transfer Reserve Personnel (RP) dollars during periods of mobilization when Reservists are paid from Active Military Personnel (MP) account. Flexibility will be limited, however, by the \$10 million realignment threshold between budget activities.

Question. Will the Chief of the Navy Reserve and Marine Corps Reserve have full management and control of his financial resources in order to execute their title 10 responsibilities for trained and ready forces?

Answer. Yes. This consolidation, while offering greater flexibility and responsiveness in the fiscal process, does not, in any way, inhibit the abilities of the Chiefs of Naval and Marine Corps Reserve from managing financial resources to execute their respective responsibilities under Title 10 United States Code. Funds will continue to be allocated to them in the same manner as today, but with a different nomenclature and set of rules governing their use.

Question. Having separate appropriations accounts for the Active and Reserve components allows Congress to monitor how well the services are executing their programs. What assurance can you give the Committee that the active components will not use the Reserve budget activities to fund their own bills or shortfalls?

Answer. Under current law, the Services have limited authority to move funds between budget activities. No more than \$10 million may be realigned into Active or Reserve budget activities without prior congressional approval. Additionally, historic Military Personnel (MP) shortfalls of \$100 million, or more, cannot be accommodated from the Reserve Personnel (RP) account.

RP funding will be a separate budget activity (BA) within the MP account. Any request to transfer funds between Reserve and Active BAs within the MP account will be fully vetted through the existing resource allocation decision-making process. As is currently the case, fund managers will be responsible for ensuring that resourcing specifically programmed and budgeted for reserve requirements is maintained.

Personnel Issues

Question. Please explain your active duty military personnel end strengths levels to the Committee. What was the number of personnel on board in October when you started fiscal year 2003? Was that number over the authorized end strength level for the Navy and the Marine Corps?

Answer. Navy's active duty end strength was 383,108 at the

beginning of fiscal year 2003. This exceeded our fiscal year 2002 authorized end strength of 376,000, but was within the 2 percent flexibility provided for in the National Defense Authorization Act (NDAA).

At the beginning of fiscal year 2003, the Marine Corps' active duty end strength was 173,733. While this is 1,133, or 0.6 percent, over the fiscal year 2002 authorized end strength of 172,600, it was within the 2 percent flexibility authorized in the NDAA.

Question. Did that increase of personnel include those under a stop/loss action? Did it include any mobilized Reservists? If so, what were those numbers?

Answer. Navy's end strength on September 30, 2002 included 301 Sailors who were transitioning as Navy stood down from the post-9/11 stop loss but does not include mobilized Reservists.

For the Marine Corps, the beginning fiscal year 2003 end strength of 173,733 included 306 Marines on stop loss (298 enlisted and 8 officers). No mobilized Marines are included in that number since Title 10, United States Code, excludes from active end strength computations those mobilizations accomplished under Presidential Reserve call-up.

Question. To date, what is the number of Navy Reserve soldiers currently on active duty in support of the mobilization?

Answer. As of March 19, 2003, 9,979 Naval Reserve members are on active duty in support of the mobilization. As of April 22, 2003, 21,118 Reserve Marines are on active duty in support of the mobilization.

Question. What is the Navy's current mobilization cap? The Marine Corps?

Answer. Based on March 2003 OSD guidance, Navy's current mobilization cap is 33,000 and the Marine Corps' is 40,786.

Question. What stop/loss action is currently in effect, and how many military personnel does that affect?

Answer. Navy Hospital Corpsmen in paygrades E-1 through E-6 with Navy Enlisted Classification Code (NEC) of 8404 (Field Medical Service Technician) are the only Sailors currently under stop/loss. This policy affects 2,616 Sailors who have an EAOS prior to December 2003 and, of that number, we could expect about 960 to have plans to leave the service.

The Marine Corps implemented stop loss for all Marines (Active and Reserve Components) on January 15, 2003. As of April 22, 2003, there were 3,010 Active Component Marines (64 officers and 2,946 enlisted) and 4,993 Reserve Component Marines (79 officers and 4,914 enlisted) on stop loss. Of the 4,993 Reserve Component Marines on stop loss, 411 are mobilized consisting of 273 from the Selected Reserve and 138 from the Individual Ready Reserve.

Question. Can you estimate what your end strength level will be in September 2003, the end of this fiscal year, and starting fiscal year 2004? What level of end strength is funded in the budget request for fiscal year 2004?

Answer. We anticipate Navy end strength to be at the +2 percent National Defense Authorization Act (NDAA) flexibility of 383,214. End strength of 373,800 is funded in Navy's fiscal year 2004 budget request.

For the Marine Corps Active Component end strength, assuming operation IRAQI FREEDOM and the War on Terrorism requirements do not change appreciably from current projections, and our forces flow expeditiously back from theater, our current worst case estimate is approximately 180,250, or 3 percent above the fiscal year 2003 end

strength authorization of 175,000. For fiscal year 2004, an end strength level of 175,053 is included in the fiscal year 2004 budget request.

Question. Currently, what is the monthly ``burn rate'' for your Navy and Marine Corps personnel costs?

Answer. The total monthly ``burn rate'' for Navy personnel costs is approximately \$1.98 billion. The ``burn rate'' associated with the Global War on Terrorism is \$340 million, per month, through March 2003.

For the Marine Corps, in March 2003, the total monthly ``burn rate'' for the Active Component personnel costs was approximately \$838 million, of which, approximately \$220 million was for Operation IRAQI FREEDOM and the War on Terrorism.

Question. When do you anticipate the military personnel accounts will run out of money? Are you using your third or fourth quarter funds now?

Answer. Yes, future quarter funds are being used. Without additional funds, MPN would run out of funds in August 2003.

Under the current apportionment, the Marine Corps will run out of MILPERS money on 15 June 2003 unless supplemental funding is received or additional funds are brought forward from the fourth quarter. The Marine Corps had to bring forward third and forth quarter funding to close out the second quarter and will require supplemental funding or additional fourth quarter funds brought forward to close the third quarter.

Question. Are you considering implementing the authorities of the ``Feed and Forage Act''?

Answer. No, we are not considering invoking the authorities of the Feed and Forage Act.

Question. What is the amount of supplemental funds needed for military pay and allowances through the end of this fiscal year for the Navy and Marine Corps?

Answer. The amount of supplemental funding needed in fiscal year 2003 for military pay and allowances is \$1,620 million.

The Marine Corps received \$1,200 million in supplemental funding for military pay and allowances. An additional \$193.7 million is required to fund increased Family Separation Allowance (FSA) and Imminent Danger Pay (IDP) rate increases and the Hazardous Duty Pay--Location (HDP-L) determination for Iraq, Kuwait and Israel.

Naval Reserve Missions

Question: Is the Navy heavily utilizing its Reserve Component like the other services are doing for the Global War on Terrorism, or is the Navy Reserve underutilized?

Answer: The Naval Reserve is not being underutilized. The Naval Reserve mobilized over 12,000 personnel for Operation IRAQI FREEDOM, Operation ENDURING FREEDOM and the Global War on Terrorism (GWOT). This represents 14% of the Navy's Selected Reserve force and a little less than 3% of the Total Navy Force. In addition, as of the end of April 2003, the Navy has mobilized a total of 19,786, or 23% of the force, and demobilized over 7,700 Naval Reservists since September 11, 2001 in support of the Global War on Terrorism. We are committed to supporting the President's prosecution of the GWOT and will appropriately rotate mobilized Reservists onto active duty to enhance the Navy's forward presence and ability to respond globally as the President requires.

One Naval Reserve Tactical Aviation squadron was mobilized and two detachments of the Naval Reserve Special Warfare helicopter squadrons

were mobilized. Additionally, 11 of 14 Inshore Boat Units and 6 of 22 Mobile Inshore Undersea Warfare Units were mobilized.

Substantial quantities of Naval Reserve medical personnel, Cargo Handling Units and Fleet Logistic Support aviation personnel, as well as more than 1,800 Naval Construction Battalion augmentation personnel were mobilized to fill surge requirements during the war. These numbers represent a balanced answer to the increase in wartime requirements for Navy.

Question. Can the Navy Reserve be doing more to relieve the active Navy's Perstempo/Optempo during this Global War on Terrorism? If so, how?

Answer. The risks associated with periods of surge will often require additional manpower and equipment from the Naval Reserve to sustain Navy commitments, and the Navy is using, and will continue to use, the Naval Reserve very effectively to relieve the Perstempo/Optempo strain associated with the Global War on Terrorism.

Commissioned units such as the Reserve Carrier Airwing, Maritime Patrol Squadrons, Coastal Mine Hunters (MHCs), and Fleet Hospitals provide needed support in peacetime as well as during crisis. Similarly, individual augmentees reinforce and sustain active forces through augmentation to Combatant Commanders' staffs, Intelligence and Cryptologic support, and Naval Control and Protection of Shipping operations. The peacetime and warfighting relief these units and personnel provide allows the Active Component the trade-space necessary to more fully use its forces to conduct deployed operations.

Question. Is the Navy Reserve involved in the Homeland Security mission? If so, in what respect?

Answer. Immediately after September 11, 2001, some of the first Naval Reserve units called into service were Naval Coastal Warfare units that were called upon to support the Coast Guard in the Homeland Security mission. This fleet protection mission is currently 100% resident in the Naval Reserve, though Navy has begun to migrate some of this capability to the Active Component in order to meet extensive overseas commitments. The Naval Reserve units will continue to be included in Coast Guard operational plans and will support the Coast Guard's Homeland Security--Maritime mission as needed.

Question. Naval Coastal Warfare capability resides in the Naval Reserve. Is the Navy Reserve assisting the Coast Guard in protecting our ports, harbors, and coastal waters for Homeland Security? If not, why not?

Answer. The National Strategy for Homeland Security assigns the Coast Guard as the Lead Federal Agency for Maritime Homeland Security (MHLS). Coast Guard is ideally suited for this role because of their unique blend of civil and military responsibilities, including law enforcement.

Naval Coastal Warfare units have the capabilities to support the Coast Guard in their Maritime Homeland Security mission provided the circumstances warrant their involvement. Naval Coastal Warfare capability is included in several Coast Guard operational planning documents, and the capabilities are well known to the Coast Guard planners.

Question. The Committee understands that the Navy is involved in an initiative to redesign the Navy Reserve. What changes do you intend to make in the Navy Reserve as a result of the effort?

Answer. In light of the Global War on Terrorism and our vision for the future--Sea Power 21, we are looking at ways to build a future Naval Reserve that is seamlessly blended into Sea Power 21, and is

fully integrated with and operationally relevant to the active Naval forces. We currently are at the working group stage in the redesign effort. The working groups have been given guidance to propose methods of transformation for the Naval Reserve so that it is fully integrated with the active force. The redesign implementation plan will be evolutionary in nature and will be pursued with Congressional concurrence. The targeted areas for improvement include: creating a single personnel system, improving active duty ownership of Reservists, developing active duty education on Reserve capabilities, consolidating Active and Reserve equipment where feasible, and simplifying funding processes and validating requirements. No decisions have been made at this time. The Naval Reserve continues to meet its mission of support to the Fleet.

[Clerk's note.--End of questions submitted by Mr. Lewis.]

Wednesday, March 19, 2003.

FISCAL YEAR 2004 AIR FORCE POSTURE

WITNESSES

HON. JAMES G. ROCHE, SECRETARY OF THE AIR FORCE

GENERAL JOHN P. JUMPER, CHIEF OF STAFF, UNITED STATES AIR FORCE

Introduction

Mr. Lewis. The Committee will come to order.

The Committee is pleased to welcome the Honorable James G. Roche, Secretary of the Air Force and General John P. Jumper, Chief of Staff of the Air Force. Let me begin by saying, Mr. Secretary and General Jumper, that this is a very, very sensitive time for all of us who are responsible for playing a role one way or another in our Nation's defense.

As we find ourselves on the verge of war, many a thought comes to mind, many a frustration; many a prayer as well. There is little doubt that at the lead point of anything that we are doing will be the forces that you represent. And I am here to say that I couldn't be more proud of the preparedness that has gone into putting you in the position that you are in.

No small part of some of the change of recent decades is a reflection of work between the Air Force and this Committee, and we are, to say the least, indebted to your leadership that has been so responsive to the kind of change that takes us over the horizon. Indeed, there is not any doubt that whether we are talking about a minor little additive to our capability over time, an arena known as the Unmanned Aerial Vehicle, or we are talking about smart weapons or we are talking about your officers sitting by laptops communicating with each other and with us, it is a phenomenal world that we are living in. Because America is so good, we do remain I think as the hope for peace long term in the world.

I wanted to share with you the thought that there is many a person who presumes that sometime out there, as the world continues to change and to shrink, that there is absolutely no way that one day we will find ourselves in direct confrontation with huge-population countries like China or like India. I just do not believe that is the case at all. Or if we continue

emphasizing research and development and the training and attracting of the very, very best that the country has to offer, we will continue to be so far ahead, that those leaders will look to find their way in the world without confrontation.

So the ``must be's'' that we are talking about today in your budget and the budgets of your colleagues are monies that involve our search for peace. And so as we contemplate war at this very moment, it is because we are all about eliminating tyrants who would use terrorism as their first asset to gain their purpose.

General Jumper, your predecessor let us know very clearly that air superiority is not good enough. It is air dominance that is a requirement, and we do have that kind of capability, but there is more to a war than air alone. We all know that.

Indeed, if we are going to be good in your arena, we have to care for the people who make up your force, make sure that they can live on the pay they receive and have adequate housing, as well as the training and retraining, along with the assets that make them so good.

It is a privilege for me to have this responsibility at this special time in our history. You both know that your entire testimony will be included in the record.

Before going to you, however, let me call first upon my colleague from Pennsylvania, Jack Murtha.

Remarks of Mr. Murtha

Mr. Murtha. Well, I know you folks are busy, and I am not going to say much because I know you want to get back to work. So we are over here to do everything we can to help you, and we know you have got some problems. And we know as important as air is, the guys on the ground have to really do the work. But, you are the big part of getting it ready to go into the ground. So we look forward to seeing some victorious results.

General Jumper. Thank you, sir.

Secretary Roche. Thank you.

Mr. Lewis. I have no idea how Chairman Young attends all of the meetings that he does, but he pays very special attention to our Subcommittee and he was with us in the Intelligence Committee room this morning for most of the time that we were there. So, Mr. Chairman, if you have any comments I would be happy to call on you as well.

Remarks of Mr. Young

Mr. Young. Mr. Chairman, thank you very much. Basically I welcome the Secretary and the Chief here to this Subcommittee, which is a very supportive Subcommittee, and I think both of you know--I want to say for the record and for the members of the Committee, Mr. Chairman, that I talk to a lot of people in uniform, infantrymen, marines, airborne. And you talk to them, you know, ``What do you really need when you get in? Are you scared and what kind of a tool do you need?'' And without question they will say, ``I want to make sure that anything that is in the air above me belongs to the United States.'' And that is where these folks have done such a tremendous job.

They have some other heavy hitting on their plate these

days, which I am not going to go into at this point, but I want to just make a comment for the record that I made so many, many times before when we get into the issue of advancing the state of the art in airplanes, fighters, bombers, or whatever it is, that on occasion I have been told, Why do you have to invest a lot of new money in a lot of new fighter airplanes, because the F-15 is one of the best airplanes in the world? And my response is, my son wants to be a fighter pilot when he gets a little older, and I don't want him going into combat in one of the best planes in the world, I want him to be there in the best airplane in the world.

And so I come here ready to support the requirements of this Air Force and its personnel, and I know that this subcommittee feels the same. And I just look forward to their testimony.

AIR FORCE ACADEMY INVESTIGATION

Mr. Lewis. Thank you, Mr. Chairman.

Mr. Secretary, and General, before we turn to you specifically, I wanted to raise another subject that has been in the media a lot of late that relates to our academies. I think you may know that I had the privilege of serving for a while on the advisory board to the Air Force Academy, and it was a privilege to have that opportunity. The men and women who made up the forces, I saw them as students, are magnificent indeed, and the mix of talent is incredible. It is true of all of our academies. But a bit of controversy, not a small bit, has arisen here of late, that I know that both of you are personally involved in, evaluating and attempting to get to the bottom of it and make recommendations to us.

This hearing is not going to be dominated by that subject if this Chair has his way, for you are about that work this moment, and all of us are feeling the pain that is a part of it. In the meantime we are dealing with the fiscal year 2004 budget, and I would like to have us spend most of our time on that. I mean, the members have their own free will, but in the meantime, I wanted you to know that at least that is my feeling about this subject, for now. It will not be the end of it, but for now.

Mr. Secretary.

Summary Statement of Secretary Roche

Secretary Roche. Thank you very much, Mr. Chairman, and Congressman Murtha and Chairman Young, members of the Committee, it is my great honor to join General John Jumper today to represent the 700,000 Active, Guard, Reserve and civilian airmen who are engaged in defending our Nation, serving our interests around the globe. We are very proud of their achievements this past year, from combat operations in homeland defense, to their daily efforts to guarantee the readiness, health, security and morale of our force.

In our travels around the Air Force, we have been impressed and humbled by their creativity, commitment, and professionalism. And as we appear before you today, we have more than 40,000 airmen serving at some 50 expeditionary bases

in over 35 countries, plus another 60,000 airmen permanently assigned overseas.

We are fighting the war on terrorism and defending our Nation's interests. Mr. Chairman, if the President decides to order our forces to combat in Iraq, they are ready.

Secondly, Mr. Chairman, I told you last year how proud I was to have the opportunity to serve alongside an officer whom I deeply respected: General John Jumper. I wish to tell you that my respect continues. He holds me in my job when there are days when I feel like not doing it. He is the reason I come to work, along with the other airmen, and I commend him to you as a simply spectacular military officer and an unbelievably great American.

TRANSFORMATION

Sir, as we prepare for the future, we fully support the Department's continuing efforts to balance near-term readiness and operational requirements and the long-term transformation of our Armed Forces. Our challenge is to fight the global war on terrorism while simultaneously transforming. We must do both. And while we face near-term budget pressures, we nevertheless must invest for the future; otherwise we may be forced to pay more later in dollars, perhaps even in lives.

Of utmost importance to us is our continuing focus on warfighting and delivering a full spectrum of air and space capabilities to the combatant commanders. Through the efforts of this committee, your colleagues in the Congress and the Department, I am proud to report that we are currently meeting these objectives.

OPERATION NOBLE EAGLE

There has been some good news, Mr. Chairman, that we would like to share with you. The year 2003 provides us with a number of examples. For instance, we continued our expanded homeland defense mission, providing 25,000 fighter, tanker, and airborne early warning sorties, something that was brand new to us in 2001--in September of 2001. This was made possible only through the mobilization of 30,000 airmen from the Air Force Reserve and National Guard--Air National Guard. They conducted over 75 percent of all the Noble Eagle missions.

Today we continue this effort with more than 200 military aircraft dedicated to providing combat air patrols or on-call support to high-risk areas, cities, and key facilities across the United States. I commend these Reserves and Guardsmen to you, Mr. Chairman.

OPERATION ENDURING FREEDOM

In Operation Enduring Freedom, we made joint operations in a landlocked Nation possible. We flew more than 40,000 sorties just in 2002 alone. Plus, you know, all the sorties we flew in 2001, over 70 percent of coalition air operations. And of our 8,000 refueling missions, 55 percent were to Navy and Marine Corps aircraft.

In Afghanistan our Special Operations teams developed new

ways to bring air and space power to bear in a variety of engagements. Our combat controllers integrated new technologies and precision weapons to do close air support from 39,000 feet using the B-1 and B-52 bombers and at lower altitudes for our Air Force, Navy and Marine Corps fighter bombers. And now we are developing better processes to target and engage time-critical and moving targets.

B-1 CONSOLIDATION

Continuous improvements in readiness and technology made these successes possible. With the support of your Committee, the Congress, Secretary Rumsfeld, we successfully consolidated our B-1 bomber fleet and improved overall fleet readiness. Its mission capability rate increased 10 percent from last year. It is now over 71 percent, the highest in its history.

SPARE PARTS

The increased spares funding that this Committee and this Congress has supported have paid off dramatically; 16 of 20 weapons systems improved mission-capable rates last year. The C-5B achieved its highest mission-capable rate since 1994, and it is now at 73 percent.

The B-2 improved over 33 percent, the A-10 was up eight percent, and our F-15s were up over five percent. Some of our oldest F-15s are suffering from age and from structural problems, and they are difficult, but the young men and women who do the maintenance on them are extraordinary. They are doing sometimes depot-level maintenance in the squadron level, and they are keeping these planes together in a beautiful way.

MISSION CAPABLE RATES

These are the best mission-capable rates we have experienced in five years and the best annual increases we have achieved since the mid-1980s. Clearly there are challenges. While we are making great progress in adapting the Air Force, we face challenges to our continuing air dominance. The increasing proliferation of advanced surface-to-air missile systems threatens our ability to gain and maintain air superiority in potential conflicts. Manned portable surface-to-air missiles have proliferated extensively. Tactical ballistic missiles and cruise missile technology is spreading.

RUSSIAN SU-37 AIRCRAFT

An advanced fighter has already been produced, specifically, the Russian SU-37, that is superior to our best fighters. But our air-to-air world is increasingly dominated by how shall we deal with the cruise missile threats.

We are now facing the undeniable reality that other nations are investing in advanced American military technologies and fielding the best our aerospace industry has to offer in their air forces. While the investment of our good friends and allies is of great value to our alliance industrial base, superior capabilities are now or will shortly be present in American-

produced airplanes that don't fly the American flag.

And by the way, Mr. Chairman, on the side, I have been researching what happened in the late 1930s, and at one point a similar thing happened where American industry was supporting foreign airplanes with much greater technology than they were providing to either the Department of the Navy or the Department of War.

AGING AIRCRAFT

Now, while other nations are modernizing, we continue to employ aging systems that are becoming more difficult to operate and more expensive to maintain. The average age of our operational air force is over 22 years per aircraft. And even with planned aircraft procurements, the total fleet average age is expected to increase to 27 years by the year 2020.

We sometimes jokingly put forward a histogram of our age of aircraft and note which ones were in service that are flying today that went into service before I was commissioned into the United States Navy, and I would hate to tell you how many planes that are in service today were in service before my colleague and dear friend John Jumper was commissioned as a second lieutenant in the United States Air Force. We have some old aircraft, sir.

MODERNIZATION

Our proposed 2004 budget addresses a number of our challenges and supports the Department's priorities. It accelerates our modernization and joint capabilities and maintains the gains of readiness and people programs we achieved last year. Most important, it gets money into our procurement program and funds essential capabilities our warfighters need. I strongly request that you support stability in our major programs.

PERSONNEL AND READINESS

Our number one investment priority remains our people. The budget fully supports our authorized total force in strength, funds our education to force development initiatives, puts us on track to eliminate inadequate housing, and reduces out-of-pocket housing expenses on schedule with the Secretary's objectives. We appreciate your continued support of pay raises for our uniformed and civilian airmen.

Our readiness budget increases by six percent. It funds an expanded \$6 billion flying hour program and sustains the positive trends we have achieved in our readiness rates. Our proposal increases our infrastructure investment above the 2003 requested level and keeps us on track to meet the Department's goal of a 67-year recapitalization rate by 2008.

F/A-22 PROGRAM

Finally, I am proud to report our proposed budget increases investment in new technologies by five percent over last year. Next year we will fund 22 F/A-22s if the budget is approved,

continuing our move to a sustained production rate. We are attempting to get stability in this program so as to replicate what occurred with the C-17 where we can bring costs down and increase reliability.

Mr. Chairman, you remember very well the C-17 and some of the terrible days it went through, and it barely survived. And yet today when we receive a C-17, within 48 hours it is in the area of operations doing its mission, without any additional work.

The F/A-22 program is improving. It is currently meeting or exceeding all key performance related requirements. We have restructured the upgrade spirals to focus on developing the system's air-to-ground capabilities and recently delivered our initial production aircraft to Nellis Air Force Base.

We are experiencing some ongoing issues with software integration but having nothing to do with the flight controls, and we face the classic challenge in transitioning from development to production, something that you know, Mr. Chairman, I lived through on the B-2, in great agony.

It is not unusual to see these problems at this stage in the aircraft program because, more and more, what we do in the Armed Forces is software-based. But one of the things I would wish to say is that John and I have spent eight months-- and eight months ago we got into this program in great depth. Over the period of time, Mr. Chairman, and with discussions with you and some very good encouragement from you, we are proud to say that the planes are now being delivered on time, and, in fact, we may have the first one that is early.

We have had a dramatic improvement in meeting the test points in the envelope for tests. We have gone back and fixed the production problems in which foreign object debris, FOD, damaged a couple of our engines. Key performance parameters have been met. It is stealthier than it was intended to be. The radar exceeds the requirement. We fired at supercruise a series of missiles. We have fired guns. We have taken care of canopy howl and we are fixing the fin buffeting problem. We have a situation with the spares that were not funded previously as they should have been, are finally starting to catch up. And we are now working on the assembly line and the station-to-station work on the assembly line is better than it has ever been.

But there are still some things, and the one that stands up is software, which will plague this program. It is plaguing an intelligence program that you know very well, Mr. Chairman. We should tell you the airborne laser is going to suffer the same thing, and we are now trying to hunt ahead of time to see how many of our programs were not properly funded for the period of integration and test, because the assumption that everything would go together correctly the first time simply is not borne out in reality.

We found that in the past, monies that were allocated to fund a second systems integration laboratory for software-- software integration laboratory--were cut to save money. We found that in linking up places within the program that were supposed to have been done so software could be developed was cut in order to save money. We found that there were programs associated with classified parts of the program where the contractor thought that they weren't allowed to collect data so

as to be able to do better diagnosis. It was a misunderstanding of the rules.

We are fixing as many of these things as we can, and each time we make an investment, like we are investing in the software integration lab, it is to do something for this program and for the F-35, because so much of the F-35 depends on this program functioning well. For instance, 55 percent of the engine for the 35 is really based on the F/A-22.

To work the software issue, we are going to take one aircraft and make it our flying-proof aircraft for software. We were able to go in December from under two hours of stability in software in the lab to well over eight hours. We moved to the airplanes because they were in initial production in some instances, experiencing difficulties again when we bring everything together, including all of the antennas. So we will take one plane, make it as close to production configuration as possible and make that plane work, and then move that software to the other aircraft. This doesn't mean we can't do the test. It does. It means we don't go the period of time without one or the other subprograms experiencing some difficulty; none affecting the safety of flight.

What is different, Mr. Chairman, is we now have a more realistic cost estimating regime established. We were embarrassed to tell you that in the past we were doing things on a 50/50 basis. We have ended that. We now do it on an 80 percent basis, which means that we should be able to minimize surprises to you, sir.

We think we have a far better management team in our Air Force on top of this program. It is not that we won't face unknown unknowns, but we are working hard to make sure that any unknown unknown is as bound as it can be. We remain committed to our buy-to-budget strategy. We will maximize the number of aircraft we procure within the established budget caps.

We have kept our word to you, sir, and we believe that once we can get stability in this program, we can lower the costs. We have already demonstrated that we can lower the costs of the radar by 40 percent and have a dramatically improved radar because technology is moving forward and there are things we can do.

This process of ours of trying not to ask you for more money on this serves as not only an insurance policy for the taxpayer, but it provides a dramatic incentive for your Air Force and our industry suppliers to get it done right. With your support, we will continue to deliver the only operational system we will field this decade that puts iron on the enemy.

May I add, Mr. Chairman, we are dedicated to bringing the system online because it will alter how we fight.

As you know, both John and I will be the first to recommend to Secretary Rumsfeld that this program be terminated if we believe we cannot bring something to you of which you would be very, very proud. And therefore, we would ask you, sir, to give us our chance, give us more than eight months. Give us a chance to bring this plane on to show you what we can do.

AIR FORCE TRANSFORMATION

Mr. Chairman, we are also working very closely with

Secretary Rumsfeld and our colleagues to implement a range of sensible management practices that we believe will help minimize obstacles in the path to effective future administration of the Department. Particularly, we are looking at measures to transform our personnel, acquisition, administrative, and range management practices.

We thank you very much for the investment you have made in our future and for the trust you have placed in our concerted effort to provide America with air and space dominance. I think on behalf of all our airmen, Mr. Chairman, you and your colleagues are providing them the wherewithal that, should the President ask them to perform, they will do so and they will do so to make you proud. Thank you.

Mr. Lewis. Thank you, Mr. Secretary.
General Jumper.

Summary Statement of General Jumper

General Jumper. Mr. Chairman, Congressman Murtha, Chairman Young, it is a pleasure to be before you today and for this chance to tell you about the outstanding men and women of the United States Air Force.

Let me begin, Mr. Chairman, by saying that my boss here, who talked about the increase in mission capability rates across our force, this would not have been possible without the support of this Committee that put out there, into the hands of our airmen, the parts and the supplies they needed to do their job.

RETENTION

Let me also add that there is no greater help to our retention issues of the past than to put into the hands of our airmen out on the flight line the parts they need to fix their airplane. It is because when we break faith with them by not giving them that part, is when they begin to walk out the door. When we give them the tools they need to do their job, we find that they stay with us. So let me thank you, Mr. Chairman, and members of the Committee, for that level of support which has made that difference.

AIR FORCE ACADEMY

Right up front, Mr. Chairman, I would like to address our situation at the United States Air Force Academy. The Secretary and I have been personally involved in this situation. We have not put anybody else to be our spokesman on this, as we talked earlier. It is our absolute determination that our United States Air Force Academy will graduate officers of character, of honor, and of integrity, and that the crime of any kind of assault will absolutely not be tolerated either among the cadets or those who would hope to be officers. We have dedicated our full power to this, sir, and we will fix this problem.

Sir, let me continue to mention that this, the year 2003, is the 100th anniversary of powered flight, and we have come a long way since those days of wood and fabric machines to the

point now that we are reaching for the frontiers of space in this exciting world that we live in. And this environment, we all know, sir, is very much different than any environment we ever expected.

If we even go back to before the fall of the Berlin Wall and the demise of the Soviet Union and look at the predictions that were made back in those times, we would find that by the year 2000, the United States was to have been a second-rate power. We would find that probably no one around could point to a place called Kosovo, and very few people could name even a majority of the ``Stan's'' and yet over the decade that has passed since, the decade or more since Desert Storm, we have found ourselves in all of those situations, and we found that we have been able to adjust to those and deal with them in a rather spectacular way. Again, thanks to the help from this Committee and the great airmen that we have and the flexibility we have in all of our services.

TOTAL FORCE

I would also mention, sir, that as Congressman Murtha pointed out, none of us fight alone, sir. The days are gone where any of us can claim that we can win any battle all by ourselves. And we stand not only as a total force of active Guard and Reserve but as an integrated force with our Army and our Navy and our Marine Corps counterparts to get this job done. And you would be proud, sir, of the way that we have gone about to exercise together and to correct some of the doctrinal differences from the past. This current set of Chiefs of Staff, I will tell you, are dedicated to getting over some of those previous obstacles. And even today, as I mentioned, the total force, the Combat Air Patrols the CAPS that we have over the United States of America are 75 percent manned by our Guard and Reserve forces, and they have really stepped up to this.

Over our Capitol city today, we have F-16s from the 388th Fighter Wing at Hill Air Force Base. It happens to be an active duty wing, but most of the time you would find a Guard unit or a Reserve unit overhead our Nation's Capitol.

Let me also say, sir, what a pleasure it is to work with this Secretary of the Air Force, who brings to the men in uniform, men and women in uniform, one with command experience. He commanded a ship. He served in the Navy for 23 years, and he has made this transition from ancient mariner to elder airman in grand style, and it is a pleasure to work with a guy who cares and who understands the burden of command on a day-to-day basis. And I thank my boss for all he does for our airmen.

READINESS

Sir, the boss went through the statistics of what we have been doing, and I won't repeat those. As we get ready again for the next conflict, I would just like to say, sir, your airmen stand ready. They stand ready because of the efforts of this Committee and the support of this Committee to do the Nation's bidding. They stand tall. They stand proud. They stand properly equipped. They stand properly manned, and properly resourced to do their job, and they will fall in on this coalition effort

and this joint effort in a way that will continue to make us proud of their efforts.

And not only to put bombs on target, but we have to remember that the first night of the Afghanistan war, we also dropped humanitarian relief supplies, 2.4 million meals to starving people on the ground. Again, the humanitarian effort will be a part of this effort that we see in this upcoming campaign when the President makes the decision to go.

AEROSPACE EXPEDITIONARY FORCE

It is not without some pain that we do this. I have testified before this Committee before our transition to the Expeditionary Force, where we have divided our air forces up into 10 equal parts, and they are on a rotational basis now so we can deal with whatever contingency does arise. We have now got deployed elements of Aerospace Expeditionary Forces, AEF numbers 7 and 8. We have pulled forward AEF 9 and 10, and even 1 and 2. Actually, we pulled 23,000 airmen from forward-planned deployment groups into the current group to deal with the current situation. And as I said before, they have accelerated their training and their workup cycle, and they are ready to go.

SPACE

The boss talked about aging systems, and of course we have the ones that are well publicized. It is also interesting to note that even our space programs, the defense satellite program is now 32 years old. The Minuteman III program, which we all considered a modern program, is now 30 years old. When you look at the charts, it is hard to believe that, like the rest of our lives, time is passing as quickly as it has, and it takes its toll on our systems.

RECRUITING AND RETENTION

You know, one of the Secretary of Defense's main transformational programs has to do with people. Another tribute to this Committee's support of our people is the fact that we are making all of our numbers in recruiting. Our retention statistics are better than they have been in years, and, again, it is because of the incentives and the resources that you all have made happen that allow those numbers to be as good as they are.

And, sir, I get to travel--as I do, and members of the Committee--all over the world. I remember Mr. Murtha and most of the members of the Committee coming over when I was a commander in the United States Air Force in Europe during the Kosovo crisis, and wandering around and seeing our people, all of our soldiers, sailors, airmen and marines, in action. And it is always--37 years I have been doing this work, and it never ceases to amaze me, the pride and the dedication you find when you go out there in the field and you watch these great airmen do their work.

Recently, I was at a field over in southwest Asia, and a young captain, Red Horse combat engineer, came up to me and

saluted. And he is building a runway. Well, anybody knows that a runway is not a minor project. It is a pretty major project. When you put it on top of a volcanic formation where you have to pump hundreds of thousands of gallons of water out of it to keep it at the right level, any engineer knows this is a significant challenge.

This young captain, Red Horse engineer, comes up and goes, ``Sir, I started this project. They want me to rotate out of here in about 2 or 3 weeks. I want you to know, sir, I'm not going until this damn thing is finished'' and his chief is right behind him. His chief master sergeant says, ``Sir, I am not going either.'' and I said, ``You men can stay until this thing is finished. You have got my permission.'' they are like that all over the place, and you couldn't be more proud to be a part of the service.

I was at Incirlik Air Base, at the bomb dump there. I walk up--there is a master sergeant and a tech sergeant. You walk up, and they are sharp looking. You salute and you say, Where are you from? You expect to hear some active duty base in reply. The guy says, ``Sir, I am a Guardsman from Little Rock, Arkansas. I am the sheriff of Little Rock.'' and you say, You mean you are the sheriff? You took a pay cut to take this job, didn't you? He said, ``Yes, sir, I did, but I wouldn't trade this job for anything.'' and I ask the tech sergeant, Who are you? And he says, ``Oh, I work for him in Little Rock. I say, ``Well, who the hell is guarding Little Rock?'' These are people who wouldn't trade the position they have for anything, to put on that uniform and go do these tasks, even if it is with a cut in pay.

EMPLOYER RECOGNITION PROGRAM

And the Secretary and I have instituted a program to acknowledge these great employers out there. I know Congressman Hobson and I have talked about this before, but you will see people walking, and with a lapel pin that has got the Air Force symbol on it, and in the middle of the wings is an ``E'' for employer. And these are recognition for the employers out there who let their people put on the uniform, let them go and do their job for their Nation, and we are equally proud of them. They are just as much heroes as the people who put on the uniform because they are sacrificing back home, too.

UNMANNED AERIAL VEHICLES

Mr. Chairman, you and I have had many talks over a long period of time about the F/A-22, about remotely piloted aircraft and their importance in the future. I won't expand on what the Secretary said. You will find the 2004 budget an unprecedented support for our remotely piloted vehicle fleet, both the Predator A, the Predator B, and the Global Hawk, and many more that we can't talk about in this setting, but a family of vehicles that we are advancing so that we can pick the best of breed and we can make sure that we are giving the whole world of remotely piloted aircraft their due in our progress toward the future.

BOMBERS

Bombers have always been an area of concern. Congressman Dicks and I have talked about this often, and, again, the 500-pound bomb for the B-2 bomber and other continuous improvements in our bomber fleet are going to make sure that we can not only stand off, but that we can penetrate and that we can loiter for long periods of time. We have seen in Afghanistan where the advent of the B-52 puts actually the B-52 in a close air support role. And I would like to say that Curtis LeMay is rolling over in his grave some place at the thought of this strategic long-range bomber doing close-air support. But we are at that point now where we can take advantage of these platforms to do a variety of missions. As my boss is fond of saying, ``we will never again buy a single-mission airplane or platform.'' And that is the exactly the way to look at it.

JOINT OPERATIONS

One more point I would like to make is that we are working hard to develop the concept of operations to work with the Navy and the Army and the Marine Corps so that as the Army develops its concept of operations for brigade combat teams and deep operations, the Marines and the Navy likewise with their concept of operations, we are there and figuring out how to complement them with the systems we will bring on in the future.

In the deep operations business, the F/A-22 is going to be the thing that is going to penetrate deep, deal with those targets on the ground, eventually moving targets on the ground and be able to keep corridors open so that C-17s and other resupply aircraft can get to those formations deep behind enemy lines, and so on and so forth, as we work stealth, standoff, and precision with the United States Navy. And we have to have the United States Marine Corps deal with some of the problems they have with shallow water mines and the like that we think we can help with.

This is the development of joint concepts of operations that are now underway with this current crop of CNO and service chiefs that are willing to sit down and work these things together.

So, Mr. Chairman, it is a pleasure to be here with my colleague and to be able to do what we have done for so long.

I would like to make one introduction. We have with us today Major Miller, who is an F/A-22 test pilot at Edwards Air Force Base, and one who can attest firsthand to the fact that this aircraft is one that we can indeed be proud of and is so much better than anything we have ever seen before, that it even waters the eyes of a steely-eyed fighter pilot. Sir, thank you very much. We look forward to your questions.

Mr. Lewis. Thank you very much, Mr. Secretary, and Chief.

[The joint statement of Secretary Roche and General Jumper follows:]

[GRAPHIC(S) NOT AVAILABLE IN TIFF FORMAT]

Mr. Lewis. The two of you reflect I think the best of the service that we have. You expressed it very well. We are in this as one team, one fight. We have a challenge that is short term that is ahead of us, but the real challenge goes on for years to come.

Shortly after I got this job, I learned that there was much to be learned from the two previous Chairmen of the Subcommittee who spent a lot of time with me, whether they liked it or not. In the meantime, both of them want the job back, and I am not giving it up--yet, anyway. But early on in that process, they joined with me, along with the entire Subcommittee, to take a look at the future of tactical air.

I think you have spent some time looking at the GAO report that raises a number of questions. Not all of them are new questions, but nonetheless, one of the first issues we faced during that new stewardship of mine was to talk about the F/A-22; where it had been, where it ought to be going, and what its future might be.

When our Subcommittee recommended that we delay production schedules and take a hard look at testing that was projected and make sure the testing took place, most people were most amazed that my right arm on things like this, my Ace from California was right along with us in connection with at least raising concerns. The concern that we were raising was not the potential capability of this aircraft. Clearly the airframe is demonstrating its phenomenal capability beyond that which many have expected.

But the very questions we were concerned about are now raising their head. I am not sure what is going to be part of the Defense Acquisition Board review that is coming up on March--it is March 27th, I believe--but I am hearing some feedback that suggests that there will be some additional questions raised. So I wonder if you would help us with that. In your opinion, will the Operational Test and Evaluation, OT&E, be delayed? Will the program be restructured? Do you have any idea will there be additional costs and will those costs come out of the production budget?

Secretary Roche. Let me start, sir. The OT&E, we have planned to do sometime between, say, August and November. It may go closer to November, because we have got to make sure that the software issue is taken care of before we go into Initial Operational Test and Evaluation, or IOT&E. We are concentrating on the IOT&E date, because it is a good way to bring everything together, but the ``standing Army'' on this program is, like, \$50 million a month. If you are not doing anything, you are still spending \$50 million. That is cost that buys you nothing.

We have made what we believe is very measurable progress, as I noted from last summer, where we took over the test program and became the two people in charge, replaced the general officers who were running it with a team that was more conducive to what we wanted to do. The program should not be restructured.

We have all of the issues associated with other early programs, like fin buffeting which happens to all twin-tailed aircraft. We have gotten that fixed. There were other problems

associated with the performance of the airplane. They are fixed.

We are now down to that problem which will plague every major weapons system in the United States, which is trying to have enormous amounts of software orchestrated and working together. It is something you slug your way through. There are people who say: ``Well, we should move to a new level of architecture called open architecture.'' Open architecture means it is plug and play for whatever you bring along. Its basic design feature is that once you have it in place, it is much easier to upgrade parts. But there are no living examples of an open architecture system that exists. What there are are various levels of modularity.

The F-35 is going to be the first that will try to have a good bit of modularity, but it will still have the same problem of how do you orchestrate among these various subsystems.

We now do so much in these airplanes. The F/A-22, for instance, will be an intelligence/surveillance/reconnaissance plane as well as an attack aircraft, as will the F-35. It will be in communications with aircraft close aboard, as well as the operations center in some other country. It will be very different than something in the past. And consequently you are trying to bring a lot together at the same time.

The flying test bed was funded and used, and certainly I made great use of it for the radar. It did not replicate all that in fact shows up on an airplane.

But a lot has been done for which we should be very proud. There has never been an aircraft that supercruised before. This airplane supercruises beyond its spec. Its radar is the best that has ever been produced. The modification to give it air-to-ground will make it even better against air-to-air cruise missiles and give it air-to-ground capability and cause its costs to come down by 40 percent per plane per radar.

So it is an issue where we are at the point where you have to slug your way through. Just as you recall that the B-2 had a radar that couldn't see through rain at one point, it was a software issue. There were other software issues of control. You remember the control surfaces weren't behaving correctly. It was a software issue. And you work your way through these software issues. The F-15 had software issues, and the F-117. Anytime you get into this world that is not unlike my personal computer at home--I cannot go beyond America on Line, AOL 5.0, because if I do, I freeze up something in my computer. It is happy with that ancient software, and it works fine, but if I try and do more, I can't. I am not smart enough to figure out how to change all the other software.

Here we are talking about certain subroutines that will have a problem. We have made dramatic progress in the lab. Now it is a matter of moving that progress to an aircraft, stabilize it, and then move it to the other aircraft. But meanwhile we are still doing an enormous number of test points in the plane. So I don't expect it to be restructured. If we were to say the software problem is a problem--we have to end the program, for instance--then I don't know any major program of any service that could pass that test.

Yes, it is true, it is very true that this phase of this program should have been properly funded. And in doing some

homework, I know that your Subcommittee made that point very clear, because I think you heard the B-2 and some of the other programs. It was not. And what we are finding is, as I noted, the same thing is showing up in other programs. We are running back to say how do we make sure that this period where you bring everything together for final integration and begin tests, and at the same time you transition the production of a program, is the most difficult time, because everything is compacted at one point. That is where we are in this program, but we often times forget all of the accomplishments we have made on the program.

General Jumper. And there is nobody, Mr. Chairman, if I might add, who has come to us and said the architecture won't work, or you have an impossible problem to solve here. We have had groups of experts go out and look at this to reassure us. So it is a matter of slugging our way through this final step of integration and getting ourselves to the finish line here in that part of the program that is always the most difficult for a system as you transition it from the engineering and development phase into the production phase, and you sweep up those last items that you have to work the hardest on.

Secretary Roche. We spent some time with some people in the National Academy of Sciences who specifically worry about the future of software and open architecture, and they admitted that we are at a complex level, and to go the next level in the next airplane is going to be a heck of an accomplishment. It is the way you would eventually like to have things be, and we would at some point like to go back and backfit the 22. To make that leap now would be to give you a program that would be out of control, and I would never recommend it.

Mr. Lewis. I have taken up more than my time. I do have other questions relative to these modifications that involve air-to-ground capability. That wasn't the original design here, and our purpose was to question what course we were looking at out there in terms of future challenge on air-to-air. Mr. Cunningham can help me with that, I am sure. But in the meantime, I am certainly glad that some of my Committee did ask some of these questions early on.

Mr. Murtha.

Mr. Murtha. I will tell you, the Chairman is modest about his part that he played in this. He fought everybody, even Jack Lew, one of the most liberal OMB directors we ever had, and said it is the only program he ever agreed with. And yet we were trying to hold it up because we believed that you needed to do more research before you went into production. The Chairman withstood tremendous pressure. One time we got into conference, and it was--well, I won't go into the details of that conference, but we had some very difficult times.

But I am comfortable with what you are doing now, but I have heard a couple things. One is that the--I didn't know the tail was fixed. In other words, the buffeting is fixed. Is that right?

Secretary Roche. Yes. The programs we have put in, we have gone through the tests now, and they work.

Mr. Murtha. Now, the computer, I hear, is so old in this machine that they don't even do the parts anymore. Is that accurate?

Secretary Roche. The computer is perfectly fine for handling things. There are parts within the computer that are no longer in production. For the long run, we are developing a replacement--it is a central processor, a long-term processor replacement for it. We can do everything with this plane with what we have. It has room for additional cards, additional memory, et cetera.

Mr. Murtha. I guess it doesn't make sense to upgrade it at this point. Is that what you are saying?

Secretary Roche. Well, if you rushed it, they are having difficulty getting the next level of processor, and we have an orderly plan to get to it. And when we get to it, we will. It is like the air-to-ground mods the Chairman refers to. We are not stopping and putting those in. We are seeing how to phase those in, and by phasing them in in a way that also reduces costs, then that is a sensible thing to do.

The reason we do all of this is we started the study--the Secretary of Defense asked us to do a very first principal study of the F/A-22 a year ago. John and I took this as a reason to sit back to say is this what we need, is this right, and to look at it. Now, like all staffs, everyone assumed that there was a predetermined answer, and they gave it to us. And we were both quite upset. And we said, no, we are genuinely interested, because if we are going to go out and slug away at this thing with the manufacturer and the colleagues in the government, we better be on firm ground that this is what we want.

Mr. Murtha. And with us.

CRUISE MISSILE PROLIFERATION

Secretary Roche. And with you, absolutely. We have to have credibility with you. When we did it, we found that, yes, there are some emerging fighters around. There are surface-to-air missile systems that are getting better and better. The key that we came to was we had no system that can catch something that is moving deep, and we have a whole program that goes at that. We have now demonstrated each key part; one quite classified, in a closed session we could tell you about, that had its second absolute terrific experiment. We now know how to go do that.

The second one was we looked at what was happening in cruise missiles, the proliferation, the fact that some of our allies are quite content to sell you a surface-to-surface cruise missile that is stealthy, and how could we defend against it? It is not just a matter of seeing it, you have also got to kill it. But it turns out that the supercruise capability of the---

Mr. Murtha. Low observable?

Secretary Roche. Low observable cruise missiles are on the market, and these are going to start proliferating as long as people are out to buy them. We asked people--we did a survey. We went around saying, What do you think the probability is in the next 20 years someone will lob a cruise missile into the

United States? We found two groups. One group said it will absolutely never happen. It would be easier to bring the ship in and blow up a port. Other groups said of course it is going to happen. The issue is there is enough evidence to suggest that our deployed forces will face this.

It turns out supercruise becomes critical on being able to get angles of attack and have multiple shots. We worked our way through and said if we make the changes to the plane, we can reduce costs and have something that is dramatically better. And there is no substitute. F/A-22 can do these things. Nothing else can.

GUARD AND RESERVE PERSONNEL

Mr. Murtha. Let me say in conjunction with what the Chief said, I was just in Incirlik not long ago with the Speaker, and most of the guys were from the National Guard in Pittsburgh. And then Mr. Hobson and I went back with the Democrat leader and, same way, most of them Reserves, integrated seamlessly. The Air Force does a better job than anybody else of putting Reserves and Guard people in the front lines. It is really gratifying to see them work so well together.

SUPPLEMENTAL APPROPRIATIONS

But now the supplemental, you had to have cut back on something since you are deployed and spend so much money overseas in this Iraqi thing. What are you cutting back on? What do you need money for? Where are you running out of money?

Secretary Roche. I will start, sir, and ask John to contribute. Clearly what we are doing is money that had been authorized and appropriated for the fourth quarter especially, we are moving up to do things, to move troops, et cetera. That is building a bill for us. That is one type of cost.

There is another type of cost, sir. We have had to use a lot of our instructor pilots, a lot of instructors, to move them overseas in order to have the kind of massive force that the President would want us to have there. That means training is being delayed.

We have been assiduous about not postponing maintenance, but at some point we are going to have to come back and catch up on minor things having to do with maintenance. So we have been giving data to the comptroller, as part of all the services putting stuff together, and dealing with DoD, both the costs of doing that, plus the fact that we have to maintain the force over the United States. And if the President asks us to go into Iraq, I am sure you would expect that we may have to put an increasing amount of forces over the United States; do that at the same time do Iraq, at the same time ensure that the deterrent in Korea is enhanced.

Mr. Murtha. What is the bottom line? When do you need money?

Secretary Roche. We run out of money? June, as of right now. You got us to June by doing something for us a couple weeks ago, which we much appreciated. By the way, thank you for lifting some of the caps on reprogramming things. That was just wonderful. Thank you.

BOEING 767 TANKER LEASE

Mr. Murtha. And we have got the tanker lease. Has that deal been signed yet?

Secretary Roche. No, sir. The Secretary is looking at it. It is a tough thing. You hire somebody like me, and you get a business deal. And the business deal is different, it is not the usual sort of a thing. It is a unique time because interest rates are very low.

Mr. Murtha. We don't like it. We don't like it, but we have got to get tankers out there. That is the problem.

Secretary Roche. And Don Rumsfeld knows this as well, Mr. Murtha, and it is a matter of can he agree with us.

Mr. Murtha. None of us like it. All of us would rather buy them.

Secretary Roche. Well, it turns out this time we think it is almost a wash. But if it is not a good business deal for the American taxpayer, we wouldn't bring it forward. We think it is. Other analysts think it is not. The poor Secretary is in the position between two numbers. They do a study on the outside; and the outside, it comes in right down the middle. He is considering it. But certainly we have been able to demonstrate to a lot of our colleagues the condition of our tankers, why we are worried, the sensible moves forward. And if we don't do the lease, we have programmed money in our budget to begin purchasing in a few years.

AIR FORCE ACADEMY INVESTIGATION

Mr. Murtha. I hope your folks will give us something on jammers also.

Finally, I want to tell you how much I appreciate the cooperation you have given our staff in looking at the Air Force Academy problem, because, you know, the Navy didn't handle their problem very well. The Army did a lot better. This is such a serious thing, but I appreciate the openness and the willingness to cooperate and the fact that you two are paying attention yourself to the issue.

Secretary Roche. We are. We are the leads. We are doing it. We are drafting the memo of instructions. We have promised the Members of Congress and Secretary Rumsfeld that by the end of this month we would issue corrective action to make--we don't want to sit and wait, because we have 218 new female cadets starting in less than 90 days, which will give us a total of 714 young women at the Air Force Academy. We have two obligations, Mr. Murtha. One is to ensure that the parents of those cadets don't go to sleep at night worrying about their daughters in ways they should not have to. And secondly, we have got to ensure that the parents of the male cadets realize that due process will always apply, and we will do that. This is something that we take on very personally, because this is not something you have staffs do. This is something leaders do.

Mr. Lewis. Thank you, Mr. Murtha. Mr. Young.

Mr. Young. Mr. Chairman, thank you very much, and as a member of the Board of Visitors of the Air Force Academy, I will say that I have followed very closely, Mr. Secretary and

General Jumper, how you have handled this. And I think you have done a--you hit the problem immediately. You didn't try to cover up anything. And we had talked earlier in private about some of the things that you were doing. Is that something you would like to say for the record now, or would you rather hold on that and----

Secretary Roche. If I may, Mr. Chairman, we are trying to pull it all together to have a coherent package. I want to vet it with my boss, Don Rumsfeld, and then announce next week, sir.

SUPPLEMENTAL APPROPRIATIONS

Mr. Young. Fair enough. I wasn't going to do this, but Mr. Murtha sort of opened the subject.

You know, one of the first jobs that I had this year, other than the reorganization and getting the hearings scheduled and underway, I will have to deal with the supplemental, and I want to deal with it as quickly as possible because I know, as you responded to Mr. Murtha, you need the money. I mean, you have been building up to a war. You have been flying a lot of sorties in Northern Watch and Southern Watch. There is a lot of money that has already been spent, but we can't get much information as to what that supplemental will look like and when we might get it. Are you able to give us any insight as to----

Secretary Roche. Mr. Chairman, I would be glad to tell you where my head is. I can't tell you when. That is above my pay grade. I know that our Comptroller and the Secretary and the Office of Management and Budget, OMB are working together. We can't predict the length of this conflict. We don't know what the costs will be afterwards in terms of reconstitution. We have said as we have looked forward that we know what Operation Enduring Freedom, Noble Eagle, and maintaining our forces are like. We know what it is like to predeploy to Guam to be able to support their increased deterrence in Korea. We have estimated that something like \$15 billion is what we would require for our Air Force, but we have to go through and justify that, both with the Comptroller and with OMB, and we are in the process of doing that now.

Mr. Murtha. Would the gentleman yield? One thing you have to make sure, we had 192 pages in 1991 of justification material. We need that kind of justification so we can turn it around quickly.

Secretary Roche. Yes, sir. That is one of the things we are doing with the Comptroller. They are not going to send something to OMB that he feels that he can't take before Mr. Rumsfeld; Mr. Rumsfeld will say, that makes sense and let's go. That is part of the delay.

Mr. Young. Mr. Lewis and I, along with Chairman Duncan Hunter and Chairman John Moore and a few other Members, spent almost the whole day--and General Jumper was there--at the Pentagon with the Secretary of Defense, and the Comptroller very specifically, because he did most of the presentation. And frankly, they were a little frustrated on how they were going to be treated by OMB on this issue of the supplemental, whether or not the request from the services would be seriously

considered by OMB. But we will just have to wait and see, I guess, on that.

JOINT STRIKE FIGHTER

Mr. Chairman, let me take up one other issue. We talked a lot about the F/A-22 here today so far, but there is another airplane out there that we refer to as JSF, Joint Strike Fighter. And my understanding was that at one point you were not totally satisfied with the engine requirements and that you were considering having competing engines. Is that still the plan and is that underway?

Secretary Roche. I will start and then again--I don't want to dominate this. My colleague is very articulate. So the JSF is about where the F/A-22, then the F-22, was 10 years ago. It is having its weight difficulties. The basic engine has about \$4 billion-plus monies that needs to be invested in it for development, and there was an issue with the second source for the engine. This is very, very important, that there be a second source, because the basic engine on the F-35 is derived from the F/A-22 engine. If there ever was a class problem with that engine, you would not want the entire fleet of F/A-22s and F-35s shut down.

Therefore, there was to be monies put in for the second engine. That was estimated to be around \$1.5 billion to do that. That cost has moved up to \$2.9 billion. Other things associated with the program have the program manager delaying that for a while, and that is causing some concern. Now, this is something that is being run by the Department of the Navy at this point, but General Jumper and I resume ownership of the program in total in 14 months, and therefore we have asked the Department of the Navy if we can be much more actively involved. We will start to become much more actively involved in the program precisely because we want to make sure when it comes back to us, we are not surprised. But it is early in the program. Software issues, for instance, will not even begin to emerge for another 5 years. But we need the second engine, to make sure that there are two engines for the plane, that will have that much production.

Mr. Young. On the JSF, one last question. And then, Mr. Chairman, I will relinquish the time. I have been reading reports on F/A-22, JSF, you know, a lot of the airplanes, and one of the latest reports on JSF said something about the weight being excessive for the vertical takeoff mode.

Secretary Roche. Well, all airplanes--you know, weight is the nemesis of every airplane, and at this stage of a program when you go from general ideas about how it is designed to very specific drawings and then start to do the weights of the various members, you will recall the A-12, which was an interesting issue because it was designed as if it were metal, then built in plastic in many cases, and the weight was dramatically heavier.

So at this stage of a program, that is always a problem. The engineers have to, once they realize it, work at it. It is starting to hit weight limits across the board, but that is not unusual at this stage, once you get the detailed drawings

begun, and they will fight this problem and fight this problem for years.

General Jumper. Sir, a lot of people think that because we flew these test airplanes, that the JSF is really a lot further along than it is. It is really just emerging from what we call ``brochure status'' into the place where you really start getting down and having to quantify things. Just like every other program we have, there will be this turmoil, and it is to be expected in any program like this until this really takes shape and the engineering and the design really comes together.

Secretary Roche. You remember the YF-22 and the YF-23 prototypes were flying handsomely in 1991 and 1992.

Mr. Young. We are not giving up on the vertical takeoff capabilities.

Secretary Roche. No, sir.

Mr. Young. Mr. Chairman, thank you very much.

Mr. Lewis. Thank you, Mr. Chairman.

Mr. Dicks, Mr. Murtha asked all the questions on the tankers, so you may not need your full 5 minutes.

AIR FORCE ACADEMY

Mr. Dicks. Mr. Chairman, I may want to come back to that, since I wasn't here to hear the testimony. I just want to say I do appreciate the leadership of Secretary Roche and General Jumper on all these issues, and particularly coming to grips with the problem at the Air Force Academy. I am a member of the Board of Visitors at the Air Force Academy, and I am very interested in the report that is going to be presented to us. And I have been impressed with the way you have taken this on directly. I think you are absolutely right. We have to restore confidence that the things at the Air Force Academy are under control and that, frankly, women are being treated fairly when they are interrogated about these issues. And that apparently has not been the case, and I hope we can get that straightened out.

And I appreciate the fact that the Chairman wants to talk about substance. I always like to talk about substance as well. But this is one we have to take care of for the credibility of the Air Force, in my judgment.

And on the tanker issue, I know that my good friend Jack Murtha, who has worked with me on many issues over the years, asked you about this. I just want to raise the question. I went out to Tinker--I know the Secretary was out there at about the same time that I was----

Secretary Roche. Same day.

AGING TANKER AIRCRAFT

Mr. Dicks. Same day, in fact. And I was shocked to see the condition of these older airplanes, and the fact that you are in there--in there for 200 or 300 days at a time, and they were all built between 1957 and 1963, except for the KC-10s, and it is about time we started replacing them. And I worry about this in the context of--there have been several accidents, or incidents, recently where you have had problems with the older airplanes. Isn't that correct?

Secretary Roche. Yes. As you may remember, Mr. Dicks, we had a plane that landed at Andrews Air Force Base and went to do a 90-degree turn on the tarmac, and the truck containing the wheels on one side remained stationary, and the plane turned on top of it and it just broke out from its housing on the wing. We have had that.

The E models are the ones we worry about most, sir, because they are older. They are the ones who were in service, many of them, before I was commissioned. At one point to update them, they took planes from the retiring commercial 707s and put the engines and pylons on them to give them some additional life. Those pylons were never intended to go the length of time that they have gone, and these aircraft are now averaging 43 years. And the corrosion, the catalytic corrosion, which is a battery-like effect when you have dissimilar metals, or metals near each other in the presence of water, is starting to eat away at them.

It doesn't happen to the B-52s by the way the B-52 is designed, but also we don't fly something like the B-52 the way we did when it was first bought. If we did, it would age a lot faster. These aircraft are flown exactly the way they were from day one, carrying a lot of fuel and cargo to our airmen.

So they are corroding, the aluminum is delaminating, the costs on the ground, just to take time. The 68 we want to retire will probably put a dent in our refueling capability on the order of four to five percent, because we will move the crews to R models. But all the R models were commissioned--that are there today, were all commissioned and flying before John was commissioned as a second lieutenant. We have to get to this, because I think everyone now recognizes it is pivotal for a global reach.

Mr. Dicks. One, that is true. In Afghanistan, I believe every single airplane that flew in there had to be refueled, sir. So it isn't just the bombers or the long-range aircraft. It is every airplane.

General Jumper. It is Navy, it is the Marine Corps as well.

Mr. Dicks. What I worry about is what if we had a block failure of these tankers? We would be in a position where we would not have this same military capability that we have today. And I also worry about this because of the things that are tough out there in the Northwest. How long is the 767 line going to be around if we don't get started on this in an appropriate time?

And I know I am preaching to the choir. I know you two have been very strong advocates of this program. I just hope you will take it back to the Secretary that it is time to make a decision and move forward with this, and I think there will be strong support in the Congress because people up here recognize how serious this problem is.

PROCUREMENT FUNDING

And the other thing I worry about of course, you know as General Myers, the Chairman of the Joint Chiefs, testifies every year, you know that we are \$30 to \$40 billion short of where we should be on procurement. And we don't have the procurement dollars. I mean, I hear voices down at OMB saying,

well, just buy them. Well, if we had the \$30 or \$40 billion of procurement money that we should have in this budget, we could buy them. But we don't. And therefore, that is why we have to go through the lease and do it differently.

Secretary Roche. Secretary Rumsfeld has been spending a good bit of time trying to get his head around this. It is difficult to make a decision that is so different than the ones that we have made in the past, and I have great sympathy with him. It is the sort of thing he asks us to do to be transformational. And sometimes you are different, and when you are different, lots of people have to come on board.

Mr. Dicks. Right. And I just think it would be a tremendous thing to get this thing started and then move it forward. I wanted to ask another quick question on the B-2.

Mr. Lewis. By the way, you have almost convinced Mr. Murtha on this one.

B-2 BOMBER GLOBAL AIR TRAFFIC MANAGEMENT

Mr. Dicks. Yeah, well, we are working on it. And Mr. Murtha is always there when it counts. Now, let me ask you this. Could the Air Force execute \$38 million if provided in a supplemental to add GATM, GATM capability to the B-2 bomber? Could the Air Force execute the same amount if provided in fiscal year 2004? Do you understand what this program is?

Secretary Roche. Yes, oh, yes. To make it more acceptable to international controllers.

Mr. Dicks. Right. This is a serious problem, right?

Secretary Roche. It is and we are going through our fleet little by little. In the case of the B-2, I think we are going to do that at the same time we worry about changing the frequency of the radar, because the radar frequency interferes with some commercial frequencies. I can't answer the question specifically. I have to go back Mr. Dicks and get back to you. But GATM is something that is across the board. By the way, in these old KC-135 tankers it is not worth putting in the money to make them compatible for GATM.

F/A-22 PRODUCT IMPROVEMENT

Mr. Dicks. Going back, everyone has to have their little bit on the F/A-22. I have been a supporter of the F/A-22. One thing that we did--the Chairman was involved in this, all of the people on this Committee frankly were involved when we had to do product improvement on C-17. We invested a considerable amount of money at one point to try and get it fixed. Well, now it has turned out to be one of our very best programs. We have gotten the costs way down, did multiyear procurement. I mean, is it time for some kind of a product improvement approach here? I know that has been suggested, and there is some controversy about it. But how do you feel about it?

Secretary Roche. In fact, sir, we have invested about \$470 million over time.

Mr. Dicks. There is a question how much. We may need to do more of it. That is, I think, the issue.

Secretary Roche. We might. At this stage, having won the first gold award for product improvement by investing

and getting costs down, I am very familiar with this. It was an attempt to get the supplier to invest to find out ways of lowering the costs. One of the problems with that, Mr. Dicks, is--it is always when you are a supplier--the assumption of what is the volume. Every time there is controversy about this plane in terms of numbers, every other supplier behaved just the way I did; which was, whoops, I had better get my money faster. And we become very difficult. We were very difficult to deal with.

When the Congress took action last year, and the suppliers saw that and saw the Secretary approve the program a year ago, within a week all the supplier negotiations were done because there was some sense of stability. This program cries for stability. If it can become stable--and we have lowered the number to produce per year so as to have something, we have both gone down--we have both gone through all the production facilities, all of the stations--36 a year. If we could get to 36 a year, then I know how to work to get the costs out of it. Then you can make very tailored additional investments in ways of lowering costs.

Mr. Dicks. Okay, thank you.

Mr. Lewis. Thank you, Mr. Dicks. Mr. Hobson.

GUARD AND RESERVE

Mr. Hobson. Thank you, Mr. Chairman. Thank you, gentlemen, for what you do.

Somebody talked about the Wrights. I would like to invite you this summer to where they learned to fly the airplane, Wright Patterson Air Force Base. And on seamless, real quick, when Jack and I were there, the commander at Incirlik has a picture on his wall outside his office. It is a picture of an Ohio KC-135, refueling F-16s from--unfortunately from Toledo, not from my base--but it is on his base to show the seamlessness of the operation. And he says he has flown with the guys and he likes it.

Very quickly, sir, Mr. Secretary, I want to congratulate you and the Secretary of the Navy at the time for concluding the 18 December 2002 Memorandum of Agreement that forms an educational alliance between the Air Force Institute of Technology and the Naval Postgraduate School at Abbot. I really very much appreciate all you have done on that.

I have got a series of questions that I will leave for the record. But I do think you did a great job on that and I--you know, we need to say thank you when you do things right, because sometimes we come around and say, hey. And I am going to ask you about one of those in a minute.

Secretary Roche. Softening me up, are you?

SATELLITE BANDWIDTH FOR USE ON WEAPONS SYSTEMS

Mr. Hobson. Yes. I can't let you go without that. But when Mr. Murtha and Ms. Pelosi and myself were there, we keep asking the troops, ``What do you need''? And the one thing that we got back from everybody we talked to was bandwidth. And I hope you all are looking at that. And if you have anything you want to respond to now in this setting is fine. If you don't want to respond now----

Secretary Roche. I think we both do. We agree. When we put a Global Hawk up, we use up an enormous amount of bandwidth. And one of the things that Secretary Rumsfeld has championed is transformational communication. And our Under Secretary Pete Teets, who is taking the lead on our team for it, is to try to have a quantum leap in how you handle bandwidth by using more laser communications between satellites and satellites to the ground.

This year we will be working on trying to definitize a program to make that make sense, because we have a decision in 2005 as to whether to buy two more advanced Extremely High Frequency, EHF satellites or to proceed down this path which is really quite revolutionary. We are working the bandwidth issue by trying to create more.

The other thing we are doing is taking each of our programs, looking to see if we can reduce the bandwidth it does occupy. So we would like to do more Global Hawk control, for instance, from the back of Multisensor Command and Control, MC2A aircraft and get off the pipes that go intercontinental from each little drone, and be able to just have one pipe that goes back.

As you know, we have done an experiment of using a tanker as a smart tanker in communications relay instead of each airplane using up satellite information. We can take all of that to the back end of the tanker with no one there, have it all processed by machines, and just have one pipe come back. Lowers costs of bandwidth, it allows us to free up bandwidth. It is something we worry about a lot.

General Jumper. Sir, let me just say we have also just concluded a test where we actually control the Predator from the back of a C-130 aircraft with the C-130 aircraft also equipped with the same sensors that the Predator has, so that you cannot only look with the C-130, but you can control the Predator from the C-130, again directly, not taking up satellite bandwidth.

And the Secretary has also directed, that we get deeply into the idea of multiple control of Predators. A lot of the time now that you spend with Predators is actually physically flying it from one place to another. If we can beef up the auto pilot and just tell it go from point A to point B and we can split up the bandwidth--and we found a way to take the bandwidth that we have now and split it up actually into several pieces--that allows you now to control several of these Predators, and you just station them where you want them at the time that you are using the pilot intervention, either when the Predator is defending itself against an air threat or a ground threat or when you are taking control of that sensor to look through it. These are all innovations that we are trying to put forth quickly to deal with the bandwidth problem.

Mr. Hobson. I would just like to make one comment about that. When you both talk about Predator and Global Hawk, I wish you would talk to Mitch Daniels, because those are both congressional adds, as I understand it, that came out of someplace around here by a couple of members of this Committee. And so not all member adds are bad.

Secretary Roche. We should also tell you that it is an initially historical analogy that we are using. This is a new

form of warfare. If you just think of it as a plane without a pilot, you will make a mistake every single time. If you think of it as an adjunct to air and space power, you can do a lot better. The model we are using is actually a model that you should be very proud of. In the late 1930s, Wright Patterson Air Field--those fields were the home of a series of different types of aircraft that were used by the Army Air Corps along with the field at Maxwell to understand what would be appropriate doctrine for the air in which they were going. And they did something by having clumps of these and actually testing them. They didn't go and spend millions of dollars to come up with the perfect airplane. They actually got their pilots involved, et cetera.

That is exactly what we are doing with these unmanned vehicles and remotely piloted aircraft. We are getting our own pilots involved and our own systems people involved and we are going to have multiple families going at the same time. It will be far cheaper in the long run. But its historic antecedent is Wright-Patterson Air Force Base in the late 1930s.

KC-135 TANKER BRAKES

Mr. Hobson. Thank you. Let me ask the question that I was going to ask you. And I want you to understand I have been into this before, some current stuff in the paper. But I am distressed for the second time that a French company will be supplying brakes for the United States Air Force aircraft. First Boeing bought French-made brakes for the C-17, which I complained about some time ago and nothing happened. Now the Air Force is going to buy French-made brakes and main landing gear wheels for the KC-135 tanker rework. On February 24, 2003, I wrote to Dr. Marvin Sambur, Assistant Secretary of the Air Force for Acquisition, complaining about the KC-135 contract. The Air Force had rejected all domestic offers for failure to meet solicitation requirements. The successful French bidder claimed it met the requirements, but that claim was challenged by one of the unsuccessful domestic bidders who had tested the French company's materials. Dr. Sambur and I met about this.

Subsequently he wrote to me on 6 December 2002, saying that the Air Force had not tested, as I maintained, the brake; but that the Air Force would test it before production. And, three, the Air Force would not grant a waiver. I very much appreciated his time and his willingness to address this matter. Nevertheless I questioned why the test has to wait until production, April 2004.

In my opinion, the Air Force should test immediately so as not to lose a year, should the French brake fail to meet the specifications, or to give them an extra year to perfect their product, that by the terms of the specification should be ready now and not then. So I have got some concern about this and this isn't a result of anything that has been going on now. I have been into this before.

Secretary Roche. It is a new one on me, to be very, very honest. Let me go back and look at it. I know that anytime you are talking about parts for the KC-135, you are talking about parts for an antiquated airplane, and therefore the supplier base is not always what you would want it to be.

Our understanding, from a note just handed to me, was that the French product in fact was able to handle many more landings than the American product. We will go look at it, Mr. Hobson. We would just be talking off the top of our heads if we addressed it now, sir.

Mr. Hobson. That is fine.

[The information follows:]

It is true that formal qualification testing for the KC-135 brakes is not slated to begin until April 2004. The Air Force will not wait a year to ensure the proposed design and prototype brake will perform as advertised. Air Force engineers are already witnessing, first hand, prototype testing performed by Messier. This data will be reviewed and analyzed by the USAF prior to Critical Design Review (CDR). United States Air Force engineering personnel will witness prototype testing on the following dates:

Prototype Test:	Test Dates:
Vibration.....	9 April-11 April 2003
Peak Torque.....	21 April-25 April 2003
Static Torque.....	18 May-23 May 2003
RTO (Rejected Take-Off).....	08 June-13 June 2003
Design Review:	Program Dates:
CDR.....	28 June-3 July 2003

Following CDR, the contractor will be required to provide the Government articles for anti-skid evaluation no later than 31 March 2004. This qualification test method and schedule were outlined in the solicitation and contract. As such, all offerors proposed a qualification program that followed this methodology. The Air Force is using the same methodology widely in both military and commercial development projects; this is the testing process used by all Air Force wheel and brake programs. The key milestone in this initial round of testing is the CDR. By following this testing plan the Air Force will be able to determine if the Messier design and prototype will perform as proposed, well before formal qualification testing begins in April 2004.

FOREIGN SALE OF AIRCRAFT

Mr. Hobson. The last thing I would like to ask you very quickly is the Qatarese are buying an advanced so-called F-16. But it doesn't look like any--I mean, it looks like, but it isn't like any other F-16. Have you all looked at the capabilities of that aircraft, because I never hear anybody talk about it. Is that because it might affect some other programs, or what is the problem?

Secretary Roche. Is it Qatar or is it the United Arab Emirates?

Mr. Hobson. Maybe it is the Emirates. UAE. And they are paying--I am sorry, you are right. But I understand that they are paying for all the research and development on this

aircraft and that it is a lot different than our F-16s.

Secretary Roche. Oh, Mr. Hobson, are you ready for my cassette? Let me start with the block 60. But I can go before that. The block--the F-16 version XM--being done for Israel, Poland, Greece, Singapore, Chile, and I have forgotten--I said Greece--will have a set of avionics suite on it that is better than anything in our F-16s. And by the way, Mr. Chairman, except for its older modification line, it will have dramatic integration of software and everything else and it will be delivered within five years of signing of contract.

The block 60 is the generation beyond that. It will be the first Active Electronically Scanned Array, the AESA radar. Has a dramatically improved electronic warfare system, forward-looking infrared, different engine conformal tanks. It resembles an F-16 only in its canopy, wheels, tail and the outer wings, and it will be delivered within five to six years of contract signing. Korea will have the F-15K, which will have different engines, different radar, different electronics, than any American F-15; highly, highly complex integration program. It will be delivered within six years of contract signing. And all these are paid for by these other countries.

The Australians will develop a thing called wedge-tail which is a 737 AWACs-like airplane, brand new radar, brand new antenna technology, integrating American and other technologies on board, and it will be delivered within seven years of contract signing. Something is not right with our acquisition process.

Mr. Hobson. I am glad I led you into that, sir.

Secretary Roche. Thank you, sir. And I didn't ask you to do it.

Mr. Hobson. No. But I think--we don't hear this and we need to know that, I think. Thank you, Mr. Chairman.

ACQUISITION PROCESS

Mr. Lewis. Something is wrong with our acquisition process.

Mr. Murtha. Yes. What does that mean?

Secretary Roche. The time it is taking for us to be able to bring something into the field as compared to the time it is taking a foreign country to invest in, develop, and purchase from American companies is--the times are too different. And even if--as we have looked at it we have said, well, let's double the time, because they are using a basic airplane form already. It doesn't take that long to design an airplane or how to control it. The time is still something like half of ours. This is a process that starts in our own Air Force, our own bureaucracy, our own requirements that seem to get away from the simple proposition of there is a supplier, there is a customer, and there is a contract. The contract specifies how many, what they are supposed to do, specifications, and the funding line. We introduce all kinds of other bureaucratic things that we find hobble our own program.

We will blame us first. When we went out and got into the test program and got into the whole thing, we found that our own Air Force was not dealing with itself in any sort of an expeditious manner. There was no sense of urgency. There were just hundreds and hundreds of people who were quite content to--well, wait for this thing to happen. Wait for that to

happen. Perfectly good people. But the sense of urgency of delivering on time wasn't there. But when you get to the same companies, exact same companies who are delivering for a foreign purchaser with a lot less red tape, things happen a lot faster. So we are starting in our own house to try and clean it up before we cast any stone at anybody else.

Mr. Lewis. Let me interpose myself in this. One of the cudgels the Chairman has is that within DOD there is a great propensity for acquisition people, especially in the civilian ranks, to be very, very comfortable with the people they dealt with last year; and the people they dealt with last year are one of the companies that you used to work for or one of the other big guys around, and we keep pushing the thought that maybe some competition from the small guys might be good. But it is tough to crack those preconceived notions. Within this mix you guys are the bosses. You hire and fire. I would like to, as you give us some subtext to Mr. Murtha's question and my comment, if you tell me that five guys have been fired between now and then, it would be interesting relative to the X and Y procurement attitude that says, oh, business as usual. No urgency in contrast.

Secretary Roche. As you know, Mr. Chairman, we are not reluctant to remove general officers from jobs if we think they are not in tune with us. Where your point is especially true is our combat controller community and our force protection community is working in a number of small drones. They are working with only small companies and they are, in fact, piggybacking a lot of terrific work that is being done by the Army and by the Marine Corps. There is no reason for the Air Force to go to any of the big companies. These little ones are producing some dramatic things.

John and I were in the mountains in Nevada a month ago, late at night, with a styrofoam little thing that was about three feet long and about two feet wide, and we launched it, watched it, tracked it. It was all made of styrofoam with a stabilized little camera. It was terrific for our force protection people. Our combat controllers are working with other small things. There is dramatic innovation in some of these small companies, and we are trying to tailor part of our force to go after it. You can't all of sudden turn to them and say, produce an F/A-22. What you can do is try to get to the larger companies, and if you know something smart about one of the smaller ones, say, go deal with them. Don't buy them.

Mr. Lewis. Yeah. But the other guys can go--that is, the foreign buyer can go get an F-16 that has dramatically adjusted capabilities in very short time frames because of a different attitude. Maybe hiring and firing, I don't know.

Secretary Roche. And stability. Stability, sign a contract, and you roll.

Mr. Murtha. Stability meaning what?

Secretary Roche. When you sign a contract with a foreign purchaser, you have a set of specs and you have a contract and you have a constant stream of money. You can buy in the sensible way the parts you need to deliver and you have to be able to prove it works. You don't have disruptions in quantity, you don't have people coming back and saying let's study whether we need this or not next year. The foreign buyer signs

a contract, except for very rare moments would the contract ever be disrupted, it will flow, and then you have an obligation. Now, if you make a mistake, you wind up bearing the cost. I made a mistake and it cost \$65 million. But that is what you do. It is business.

General Jumper. But you are allowed to--then all the subcontractors go out there and they buy--if the contract is for 100 airplanes, they buy 100 airplanes' worth of stuff at the best possible rate. They get the best price for it. When all the subcontractors are allowed to do that, it gets that cost down and gets that time down to a manageable proportion.

Mr. Murtha. Well, what can we do to stabilize it? That is what I am asking.

Secretary Roche. Well, the part that we would ask of you--and remember, all of this is our own problem, not your problem, sir--is that a program have some steadiness to it. If we could have two years in a row--and I will use my favorite--of the F/A-22 treated as a stable program, suppliers know how to behave under those circumstances. They settle down. They willingly invest because they want to be the long-term supplier to get their own costs down. When they see numbers bouncing, when they see there is a new study or this is happening or that is happening, the natural reaction to go is, This is very uncertain, I don't like uncertainty, I don't want to risk money.

Mr. Murtha. Have we done that?

Secretary Roche. Yes, sir. And so have we.

Mr. Murtha. In what regard?

Secretary Roche. In terms of the program funding over many years and not having it settled early enough and then having some steadiness to the program. But as I say, the part of the Congress is at the end of the chain. In our own Air Force we have caused instability.

F/A-22 PROGRAM STABILITY

Mr. Lewis. I am going to get to Mr. Visclosky, but you just forced me to ask this question that one of my very able people who worked on the F/A-22 brought to my attention. The Congress, OSD, nor the Air Force has cut F/A-22 in many years in terms of dollars available. All problems have come from cost growth and schedule delays. Tell me why that is the case if we are dealing internally with our own problems.

Secretary Roche. Well, there have been studies of the program which have suggested that the numbers volume, the long-term production would vary whether it would live, not live; how many planes there would be or not be--which have caused some uncertainty in the supplier base. And certainly when I was a supplier, I watched this occur. But I said most of the problems are within our own.

Mr. Lewis. Are you responding to my question? I am wondering since we didn't cut numbers, we didn't cut costs.

Secretary Roche. You didn't cut numbers.

Mr. Lewis. Who did? Studies are fine, but you know, the money is money.

Secretary Roche. These things go through the budget process. My understanding is the program did not go as

initially it was supposed to have flowed.

Mr. Murtha. But you took it out of research--you took it out of production and you put it in research. In other words, you asked us to shift it, so it is not a matter of we cut it. We put the same amount of money in there.

Secretary Roche. That is correct. By the way, with a foreign buyer, there is no color of money. You move the money back and forth.

Mr. Murtha. One of the mistakes you make, you request too many when you ask for it, because that makes the price go down. When I say ``you,' ' I am talking about the Air Force.

Secretary Roche. We agree with you.

Mr. Murtha. We need to have a more realistic figure in what you request so we----

Secretary Roche. Yes, sir, Mr. Murtha, we agree. Not only that, we have found that when we go back--went back and looked at what were the cost estimates, it was a 50/50 basis, which is crazy. Which meant that the probability of the program going south inside the Air Force was very high. Now we are trying to tell everybody move to an 80 percent. Put in the uncertainty so that we don't have the surprises we have had. Because if we surprise you, then you have to worry about how to deal with it.

But between you and us, the Office of the Secretary of Defense has to worry about it, OMB has to worry about it, et cetera.

General Jumper. The software integration lab is a perfect example. That was a decision made to save a buck, and it was the wrong decision to make. There is also test equipment that had to do with the environmental control system on the airplane that was cut again by the Air Force to save a buck. These are mistakes that were made that start with our own and we have to correct.

Mr. Lewis. I guess it goes back to our original discussion here that the stability that these other people seem to experience some way, even when we control it, we lose control.

General Jumper. Absolutely.

Secretary Roche. What Don Rumsfeld refers to is appetite. And there, Mr. Murtha, you are absolutely right. Where the appetite is so high, and then someone says, well, that's going to cost something--well, no, we will do it this way; everything will fit right the first time.

Mr. Lewis. We will cut corners here.

Secretary Roche. You don't have to buy all the spare parts because it will all go together. That is crazy. What we are trying to do is to not leave our success with what we have found and we have great sympathy with the comments that you are making.

Mr. Lewis. Well, we desperately were working early on to have this not be a broken program. And I am still worried about it as we go forward and I await this with great interest.

Mr. Visclosky, you are generous and patient.

MILITARY AND CIVILIAN PERSONNEL JOBS

Mr. Visclosky. Thank you very much, Mr. Chairman. Gentlemen, thank you very much for your work. I have a couple of questions on personnel, and if I could just give you three

examples and then if you could respond. It is my understanding that Air Force personnel are replacing civilian truck and bus drivers who are performing nonsecurity-type of work at Robins Air Force Base in Georgia. Secondly, it is my understanding that the Air Force is also planning on replacing civilian employees who are currently cleaning restrooms and kitchens and renovating military housing also with military personnel, in this case at Patrick Air Force Base in Florida. Also, at Patrick Air Force Base, military personnel are being assigned to collect garbage and clean streets in replacement of civilian employees who are about to be let go.

One, I assume because I am asking the question, that that information is correct. Secondly, I guess my question is why would we be having military personnel replacing civilians who are doing this, when we are calling up Reservists and The National Guard to help fight a war? Why are we having military personnel do these essentially civilian jobs?

Secretary Roche. Mr. Visclosky, it is a terrific question. It is precisely the opposite of the direction that we have given over and over and over. We will follow up on each of those. But you should please know, sir, that General Jumper and I have been adamant, that we are looking for ways to free up military uniform people so they do military things and not do things that could be better done by, say, active duty people like Guard and Reserve or uniform people that could be better done by civilians.

We are in favor of more contracting. We are in favor of a more stable work force, but not to have military people do nonmilitary things. There are some who think if you are in uniform, you are free. It is not true. It is just not true.

I have probably lost it now, but there was a period of about six months ago, we had the pricing out of what it really costs when you use an average airman, and it is something like \$90-some thousand dollars a year when you put all things together. Those airmen should be used for the things that they do well, not for things that could be done by others. And we have asked each of our major commands to look to free up, because we have an end strength problem, and I absolutely agree with Secretary Rumsfeld. Before we increase end strength, let's make sure we are using the people we have in things we want to continue to do, and using them well. We found 2,000 of our airmen not working in our Air Force. Now, some of that is very legitimate. They are on group staffs CINC staffs, or combatant commander staffs, or they are in cross-training in hospitals. But we also found 600 of them in the Defense Finance Office. And we said we want them back. There is no reason for 600 of them to be there.

So this is absolutely antithetical to all the direction we have given, and your question is absolutely right, and we will ask the same question.

Mr. Visclosky. Yes. And I have another example, but if I could just submit those to you in writing and get a response because----

Secretary Roche. Absolutely.

Mr. Visclosky [continuing]. Because my personal position is we don't have enough people in uniform to meet the commitments we have today, let alone any misallocation of those. And if you

could respond I would appreciate that very much.

Secretary Roche. We shall.

[Clerk's note.--Questions submitted by Mr. Visclosky and the answers thereto follow:]

Question. Why in the time of war would the Air Force be placing uniformed personnel into non-security type of civilian jobs in the United States?

Answer. The assumption of responsibility for providing military vehicle operations support represents the culmination of an Air Force Materiel Command (AFMC) plan approved in 1998. The plan centered on the relocation of deployable military positions to Air Force bases where they can best support the Air Force expeditionary mission. The change was a matter of military necessity when the plan was approved and remains so.

A key element of the AFMC plan called for the migration of deployable military personnel from Edwards AFB, CA, a base without combat flying units, to Robins AFB, which hosts several operational combat flying squadrons. This realignment allowed the function at Edwards AFB to become available for competition with industry. The Air Force objective is to realize synergies by collocating essential military expeditionary combat forces at bases with flying units. Bringing all the deployable people together facilitates teaming during training, equipping and preparing for deployment, as well as during subsequent deployments. To maintain their skills, these military personnel perform vehicle operations duties at Robins AFB when they are not performing their expeditionary role.

Question. Why in the time of war are we seeing Air Force personnel replacing civilian truck and bus drivers who perform non-security type work at the Robins Air Force Base (AFB) in Georgia?

Answer. The assumption of responsibility for providing military vehicle operations support represents the culmination of an Air Force Materiel Command (AFMC) plan approved in 1998. The plan centered on the relocation of deployable military positions to Air Force bases where they can best support the Air Force expeditionary mission. The change was a matter of military necessity when the plan was approved and remains so.

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Question. Why are we replacing limousine and protocol drivers who drive people from Warner Robins, Georgia, to Atlanta, Georgia? Additionally, base shuttle drivers and flight line drivers?

Answer. The assumption of responsibility for providing military vehicle operations support represents the culmination of an Air Force Materiel Command (AFMC) plan approved in 1998. The plan centered on the relocation of deployable military positions to Air Force bases where they can best support the Air Force expeditionary mission. The change

was a matter of military necessity when the plan was approved and remains so.

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Question. Why is the Air Force planning on replacing unionized civilian employees cleaning toilets and kitchen sinks and renovating military housing with military personnel at Patrick AFB in Florida?

Answer. This workload at Patrick AFB is currently being performed under contract. Military personnel are not being re-assigned to perform these duties on a continuing basis.

Question. Why are military personnel being assigned to collect garbage and clean streets at Patrick AFB when there is a war about to be fought and civilian employees are about to be discharged?

Answer. This workload at Patrick AFB is currently being performed under contract. Military personnel are not being re-assigned to perform these duties on a continuing basis.

Question. Does the spending bill being presented by you today include additional monies for these civilian jobs?

Answer. No, the fiscal year 2004 budget request does not include additional funds for these civilian jobs for the following reasons: (A) At Warner-Robins AFB, military personnel will continue to perform base shuttle functions to support Aerospace Expeditionary Force mission requirements. Contractors will continue to perform decoy vehicle driving functions. The fiscal year 2004 budget request maintains the fiscal year 2003 level and includes \$1.1 million for contractors to perform the decoy vehicle driving mission and other vehicle operations duties. (B) At Patrick AFB, subject functions (collecting garbage, cleaning toilets or renovating military family housing) are performed by contract personnel. No additional funds are required.

[Clerk's note.--End of questions submitted by Mr. Visclosky.]

CRUISE MISSILE LIFE EXTENSION

Mr. Visclosky. I also have a series of questions on the cruise missile program, and we had a discussion last year about the concern I have. And it transcends cruise, but it is an important part of it, is Mr. Hobson, Mr. Frelinghuysen, and I are on the Energy and Water Subcommittee. And obviously, we have a large expense at the Department of Energy as far as the weapons rate and potential modernization program. And again for the record, I have a whole series of questions, my concern being that decisions are being made at the Department of Defense--and if they are legitimate ones that is fine--but without a recognition of what the costs are long term to the Department of Energy----

Secretary Roche. Yes, this is on things with the Advanced Cruise Missile, keeping ACMs going.

Mr. Visclosky. Given the pronouncements of the President as far as where we would like to be as far as----

Secretary Roche. National Nuclear Posture Review.

Mr. Visclosky. Exactly. And the one question I would have--and then I would yield back my time--is apparently the Air Combat Command last year was preparing a mission statement for the cruise missile life extension. Do you know, Mr. Secretary, if that has been completed at this point in time?

Secretary Roche. I don't know. John, do you?

General Jumper. I don't know. I was a part of that process and as far as I know it was submitted, but we will have to get back to you, sir, to get you a specific answer.

Mr. Visclosky. If you could. And I have a fairly significant series of questions on this topic, but again I don't think I need to take people's time here, but my lack of following up on each one of those questions here should not be meant to----

Secretary Roche. No, I understand sir. In fact, we prefer it that way because we think some of the answers are going to be classified answers.

Mr. Visclosky. Right. Thank you very much.

[The information follows:]

A mission needs statement (MNS) has not been done for cruise missile life extension. The recently signed Nuclear Response Concept of Operations (CONOPS) will drive any required changes to the current MNS.

Mr. Lewis. Thank you very much, Mr. Visclosky. We have on my right six members who have been here most of the time, almost all the time, who have not asked a question. So thank you for your patience, gentlemen.

Mr. Bonilla.

T-37 AIRCRAFT AT LAUGHLIN AIR FORCE BASE

Mr. Bonilla. Thank you, Mr. Chairman. I only have a very brief question.

Gentlemen, thank you. As most of the Committee members feel, we very much appreciate your service to our country. We know you have a lot of things on your mind right now. I just want to ask a brief question. With Laughlin Air Force Base and the great pilot training they have been doing there for many many years, there is a need for an aircraft storage facility that I was asking the wing commander about just the other day. And as you know in that part of the country, two or three times a year there are severe storms that develop. And last April we had one that caused damage to 80 percent of the assigned T-37 aircraft that cost \$5 million to fix. You just never know when this stuff is going to hit. And they really need, in light of the pending crisis we are faced with--and we would just hate for anything to stop them from what they need to do--I am going to look at, unless you object, and I haven't even spoken to the Chairman about this, but I am going to look at trying to put the money for this hangar in the supplemental because this is a

very urgent need that they have down there. It is about a \$3.7 million project.

General Jumper. We will look at it too, sir.

Mr. Lewis. We have got one at George Air Force base, too, by the way.

Mr. Bonilla. General, I didn't know if you were aware of this or not.

General Jumper. I was certainly aware of the incident.

Mr. Bonilla. But you know, we work very closely with Laughlin and Randolph down there. We want to make sure they have what they need to get the job done and have no interruptions.

General Jumper. I understand, sir. No, that is perfectly legitimate. We will certainly take a look at it from our end.

Mr. Bonilla. Okay. Thank you very much. That is all I have, Chairman.

Mr. Lewis. Brevity was by way of trying to get that money.

Mr. Nethercutt.

BOEING 767 TANKER LEASE

Mr. Nethercutt. Thank you, Mr. Chairman. Welcome, gentlemen, and thanks to your team behind you. Thanks for all of your good work. I want to pile on a little bit on the tanker issue. I know it has been discussed, but I find it surprising that in the decision to reduce the E model 68, roughly 20 percent of your fleet, that there hasn't been more objective or documentary evidence as to why this is a good thing, especially in light of the fact that we are not planning to purchase a new tanker until 2009. And there appears to be some delays in decision-making, understandably, and I appreciate that, relative to the lease. I don't see any evidence, and we have asked for it: net payroll impacts, necessary MILCON adjustments, cost of WINS, savings data, whether the reduced fleet for tankers will allow us to meet our two Major Regional Conflicts, MRC obligations. And I know your staff is working on it. My sense is they have worked hard, and I am not here to just knock them around or criticize. But I am surprised this hasn't been done or documented, or be able to say here is the case for knocking out 20 percent, and here is what we are going to do if we don't have a new 767 tanker lease arrangement and we have to buy only one, I understand, by fiscal year 2009.

Secretary Roche. Yes, sir. The Air Mobility Command has had the lead on that. And I am in receipt of your letter and have your letter and we will get back to you. We asked those same questions: What was going to be the impact on our ability to refuel? Given the amount of time these things are down for maintenance et cetera, it turns out it is about 4 to 5 percent hit in terms of the amount of refueling we would normally do, because we would move the crews--we keep the crews and we move them to R models and use the R models more because the Es are just sitting there.

The second question we asked is, well, look, what does it take to keep these things going? Well, they have to be modernized, they have to be repaired, the cost in depot. And we should tell you this is going to start affecting more and more of our types of airplanes, not just the tankers. As this chart shows age going on, we have a problem in F-15s now that we are

having to deal with, Some of the older F-15s which are now averaging 20 years old. The sense was by the Mobility Command, and then double-checked by our staff, that it is not worth it to the taxpayer to ask that we keep these things limping along, even if we don't get the lease. Because we specifically said, let's do everything on the basis that there is no lease, just like our basic plan is, and the Mobility Command came back and said these E models are just sick chickens.

Mr. Nethercutt. That is fine, Secretary, but did they do it over a beer?

Secretary Roche. No, sir.

Mr. Nethercutt. Where is the documentation?

Secretary Roche. Data has come in and we are packaging the data to bring it over to you.

Mr. Nethercutt. Okay. I am just surprised it hasn't been maybe more forthcoming or more available to be presented. And I am not being smart about it. I am serious. I think this is important.

Secretary Roche. No, I understand.

Mr. Nethercutt. To not only my State but to other parts of the country as it relates to our needs in the coming months and days and years.

Secretary Roche. I would not wish to give an excuse, but the Mobility Command has been busy in the last couple of weeks. But they have the data and we are vetting it and we will bring it over to you.

Mr. Nethercutt. All right. Well, I would be grateful, because I want to support you, and this Committee is going to make this critical decision about this reduction in force and where we go from here, too. I have seen differences in cost analysis. An Inside Defense Article says the Air Force is going to save \$3 billion in fiscal year 2004 alone from retirements. My understanding of what our discussion entailed was about \$800 million over 6 years. So there is this disconnect that I think----

Secretary Roche. There is savings in depots. There is cost avoidance by not having to do the GATM work or not upgrading, and that is the cost that we are involved. And we will show you both direct costs and there is also cost avoidance.

[The information follows:]

The Air Force decision to reduce KC-135E model inventory by 68 aircraft balances Air Force priorities and programs limited funds where they are most needed. This fleet reduction consolidates and retains a capable war-fighting asset yet still allows the Air Force to support other priorities. The cost savings for reducing the 68 KC-135Es in fiscal year 2004 through fiscal year 2009 is \$781 million. Those savings are derived from eliminating depot maintenance, repairs relating to corrosion, manpower and required engine overhauls. Over 80 percent (\$627 million) of the savings is scheduled to be directly reinvested into sustaining the remaining KC-135 model fleet. The \$627 million will be applied to repairing corrosion, flight training, and aircrew and maintenance manpower. The combat capability of the remaining KC-135s is enhanced by increasing crew ratios and maintenance manning, resulting in higher utilization rates on the remaining aircraft.

EVOLVED EXPENDABLE LAUNCH VEHICLE

Mr. Nethercutt. All right. One final question--and I don't want to hold my friends up here. But you can answer this for the record or now if you want. I want to talk to you about the Evolved Expendable Launch Vehicle, this next-generation heavy launch vehicle for the military space programs. And the possibility is that I understand NASA wants to launch this orbital space plane and have it be a manned aircraft that is going to be a different configuration moneywise and designwise, I understand, as opposed to unmanned launches from an Expendable Launch Vehicle. There are some costs increases if you are going to do a manned one, just because of the safety issue. And I am wondering if you are able to tell us who is going to bear the cost for the burden of this increased obligation if it is manned versus unmanned, how you analyze it, if you can say something now. If not----

Secretary Roche. We have had some discussion with NASA. I would like to come back to you on the record for that, because we have to talk to NASA to help answer the question. It could have been exploratory language. I would like to know where it stands. This was new on my scope and new on John's scope.

Mr. Nethercutt. All right. Thank you a lot for your service and your answers.

[The information follows:]

Since human rating is a NASA-only requirement at this time, the Air Force assumes NASA would fund any associated mission-unique requirements.

Mr. Lewis. Thank you, Mr. Nethercutt.
Mr. Cunningham.

TANKER LEASE

Mr. Cunningham. Thank you, Mr. Chairman. First of all, I would like to identify myself with the tanker problems. You know, if you call Texaco posit coming out of Iraq and it is on the ground at Hill Air Force Base, it does not do you any good. And there is not a fighterpilot I know that doesn't, you know, as soon as you get engaged, start wondering where the Texaco is. And it is critical. Just like if Turkey doesn't allow overflights and stuff, then that becomes even more critical.

F/A-22 AIRCRAFT

What I would like to do, Mr. Chairman, is give the members here, not necessarily our friends in blue, but the members here, and especially the staff, some things to think about concerning the F/A-22. General Accounting Office (GAO) has identified certain problem areas, and members are concerned with costs. But when it comes to telling if an airplane is good or bad or what, I would rely--even more than the folks in this room--I would rely on the Air Force's and Navy Fighter Weapons School's, young lieutenants and captains and folks like Major Colin Miller here, to tell us, what the capabilities of that

airplane are, rather than I would bean counters. They care, but they don't know firsthand the capabilities of this aircraft or their significance.

Secondly, there are avionics questions. We did stop funding a F-22 software integration lab. That is not the Air Force's fault, but our own. And now we are having aircraft integration problems, and components are not being interfaced properly. There are problems, but I truly believe they are fixable.

There is something else we should consider. Much of the avionics integration problems that we are talking about will be issues on the Joint Strike Fighter. If we don't fix them now on the F/A-22, we are going to end up with over 30-year-old fighters instead. Then when the Joint Strike Fighter comes up, which is not as capable as the F/A-22, it is going to be delayed even more because we haven't fixed those avionics integration problems. And we are going to be in deep kimchee in our fighter forces. It is going to mean life and death to the young kids who fly those aircraft.

Secondly, there is not a single airplane I know that has ever come through tests--problem-free. The F-18/EF, it doesn't even have the same radar now that it is going to have in its final configuration. And guess what? We are going to have integration problems along the way. So if you are willing to criticize the F/A-22, you had better be able to criticize other programs that you are going to support down the line because we are going to have these integration problems.

The F-15, the very first time I flew it, had a problem with the radar flood mode. That forces you to go to pulse doppler, and it has a seven percent kill probability. While scanning you could track the enemy on the F-15, you couldn't shoot him. Well, we fixed that on the F-15; but it took time and it took money. And other fighter airplanes had problems. On the F-16, we initially had a deep stall. We wanted to put the F-110 engines in for a fix but the bean counters, again, said, you can't do that, you are going to have an FCG beyond 52 percent mach. They said the airplane will fall out of the sky. Well, we fixed that and F-16 has been a phenomenal aircraft. But it takes time to work out problems with these aircraft.

And if you want to cancel these programs every time we have a glitch, there are costs. I am a Navy guy trying to protect an Air Force airplane. But I believe in it and I think it is the way to go. And the key point is that with the Joint Strike Fighter, with F-18 or an F-14, do not have the capability alone to penetrate some areas. You are still going to need the F-22, with the B-2 to stand the point--because these other aircraft we are building today do not have the capability to penetrate in all scenarios.

I yield.

Mr. Lewis. I thank the gentleman for yielding and for his comments and he has been very cooperative all along regarding the questions that the Committee has raised on that program. The elimination of the lab that you were talking about though, Duke, I might mention, came as a direct result of the authorizers putting a cap on research and development. In turn, the bean counters in the Air Force decided that the thing to do was to cut back on that lab. These questions need to be asked and this program, presuming it survives all the way through the

process--and I certainly support its survival--will do so with a healthy program because of things this Committee----

General Jumper. Which is my promise to you, Mr. Chairman.

Mr. Lewis. It is. Mr. Frelinghuysen.

Mr. Frelinghuysen. Thank you, Mr. Chairman.

Gentlemen, people have invoked Incirlik. I think all of us salute the work that has been going on for 10 years, Operations Southern Watch and Northern Watch, and the dangers involved and the bravery of those pilots. Obviously, their skill has kept them alive and we hope those skills, as they are put to use in the future, will keep many of them alive. We salute their courage.

EB-52 AIRCRAFT

I have a question relative to the EB-52. The Air Force appears to be enthusiastic about developing an EB-52 to assist in the electronic warfare role alongside the F/A-22, the F-35s and other systems. Can you explain to me the concept of operations and why the Air Force is exploring the option of an airframe that is one of the oldest in the fleet doing a mission that is essential, while at the same time moving forward with fighter programs that are supposed to be having EW as an organic mission? Wouldn't it be more realistic and reasonable--and we are here about cost--more cost effective to move forward with an electronic attack version of the F/A-22 and the Joint Strike Fighter, JSF, and leave the B-52 to bomb until it is phased out? What are we doing? This falls under the category of is it worth it to the taxpayers.

General Jumper. Sir, thank you for that question. Admiral Vern Clark and I have gotten together as we talked about the version, the replacement for the EA-6B, and we have talked about trying to expand this definition of electronic warfare to beyond just a jamming on a fighter platform, and how we might come together with other means to address the larger problem of being able to penetrate warheads to targets, which is exactly what you are trying to do with electronic warfare.

One of the options that comes out of this study is the need to have persistent jamming of the type we saw in the Kosovo war, where we had lots of EA-6s that had to come in and out and try to cover a large space, not only for the war over Serbia, but for persistent aircraft over Kosovo to stay for long periods every time to do close air support and other things. As it turns out, if you look at it, you have a B-52, it has an external fuel tank out there on the wing tip that is the size of a small condominium. You can fill that full of jamming equipment, potentially, and the studies are still ongoing, and you can provide a stand-off jamming capability that can loiter for long periods of time in those situations where you have to persist over that battlefield for long periods of time to do close air support and other things. And by the way, you don't inhibit its bombing capability one iota. So it can go. It can still deliver weapons. It can do the stand-off jamming as an adjunct mission, all with loiter times that are not at all possible with fighter aircraft.

With the fighter aircraft--and Vern Clark is always in need of the capability that would have to come off the carrier--it would have to be able to run with the pack, would have to be

able to conduct a raid to get back in and get back out again, and always have that jamming capability along with it. So there is a complementary nature to this thing that is a subject of our study right now before we come forward with specific proposals.

With regard to the age of the aircraft, again, I would just emphasize, sir, that three times during the life of the B-52 we have gone in and done major structural upgrades to that airplane, because it was always supposed to be able to penetrate at low level and high speed over a long-range nuclear mission. That mission has not come true. Now we are flying the airplane up in the benign high altitude environment. It is beefed up beyond anyone's expectation. That is why it continues to perform so magnificently and so the platform and the mission seem to come together. We don't know all the details yet, but that is the nature of what we are looking at, sir.

Mr. Frelinghuysen. So this is a behemoth that is never going to die because it still has--it still can be utilized.

General Jumper. There is no reason to make it go away, sir, because it still is so productive in our inventory.

Secretary Roche. And in our case, if we were to go instantaneously to an all stealth fleet, we might think differently. But you would not want to take an F/A-22 that is stealthy and give it a stand-off jamming capability so everyone knew where it was. This is an aircraft that is big enough and, as General Jumper said, the size of these pylons are a size of a small condominium. We would use the same equipment the Navy would, so we would not be developing anything new.

Mr. Frelinghuysen. Thank you.

Mr. Lewis. Thank you. Mr. Tiahrt.

TANKER LEASE PROGRAM

Mr. Tiahrt. Thank you, Mr. Chairman.

I was thinking maybe my colleague from New Jersey was going to advocate for reengineering the B-52 and I was going to tell him I am with him 100 percent.

I would be remiss if I didn't talk a little bit about the tanker lease program. One note of caution. If we study this and delay and interest rates go up 1 percentage point, that would be the equivalent of losing one of the tankers. It would cost that much money. So I think delay--there is a good chance interest rates will go up. Not a very good chance that they are going to go down much further. So I may be preaching to the choir on this, but I did want to make that note of caution.

Also, I did hear that--I read, excuse me, that it would be difficult if not impossible to maintain our air bridge to the Middle East and conduct a 24-hour bombing campaign because of the limitations on our tanker fleet now. And I don't know if that is true, and I hope it is not.

Secretary Roche. It is not true, sir.

AIRBORNE LASER PROGRAM

Mr. Tiahrt. Okay. That is comforting.

I will move on then to the airborne laser program. I wish we had that capability today in the Middle East based on what

is going to happen in a short amount of time here, the ability for us to have an airborne laser there and really take care of any Scud problem that could result from it in my mind. I am proud of the job that the people in Wichita have done modifying the first unit, completed successfully the ground tests. Now it is at Edwards Air Force Base. Could you give me status on how the program is going? Are we on schedule, are we on budget, and how is the technology?

Secretary Roche. I will start. General Jumper has a long history in this program, a great supporter. This is one of those technology risks that we should take because if it pays off it is really quite dramatic. The program is on schedule, but it is hitting that point of integration and tests which I discussed earlier, and the program was not properly budgeted for that. So they are running ahead of their budget to do the right thing.

We have had a major review of the program with General Kadish and the program manager. They have done a terrific job on this program and it is one where it is at that point in time now where you have to worry about things coming together. If, like the F/A-22, people did not buy spare parts, and so for instance we found with the F/A-22, sometimes planes would sit for two weeks awaiting a small piece of tubing. We are praying and trying to catch up as fast as we can in the airborne laser to see, well, what parts to be buying ahead of time so that you don't have the same sort of a problem. They will go through some difficulties, but the technology seems so good it is worth really pressing forward.

General Jumper. Sir, I have followed this program closely now for a number of years as the skeptical fighter pilot who-- they said, we are going to shoot this laser through unstable atmosphere and hit a small target, and I was the biggest skeptic they had. I was dragged off by an enthusiastic group of scientists out to Kirtland Air Force Base and at the end of three days in 1996, they convinced me that the science is there to do this. As the Secretary says, that we are at--this is one of those programs where we went directly from a computer-aided design on a computer screen to building the airplane as a way to achieve efficiency. And as these things come together and they actually bolt the pieces of equipment to the floor and they feel--they figure out how to do things like suspend the tube that directs the laser path through the airplane that goes up and back through the airplane several times, these are the practical things, engineering things, we are running up against right now that are causing delays. Nothing that is a show stopper yet, but still watching all this come together, you know that the problems are going to be there.

So it is exactly as the Secretary said. We depended on this to all come together in a seamless and faultless way. That is not going to happen and we are going to have to be prepared for some instability in this development program. But, sir, let me tell you, I watched the development of the mirrors up close and personal. I sat with the scientists as they explained to me how they generate this hydroxide laser beam. I will tell you, the technology is there and we really do need to give this a chance.

Mr. Tiahrt. Thank you. I am very encouraged by the progress

and I hope they can finish ahead of schedule, because I do know that it will make our troops much safer in the area.

Thank you, Mr. Chairman.

Mr. Lewis. Thank you Mr. Tiahrt. Mr. Wicker.

PILOT TRAINING

Mr. Wicker. Let me ask, undergraduate pilot training, how many pilots did we train last year and how many this year? What are we going to need 5 years from now, 10 years from now?

Mr. Hobson. Is that the Guard and Reserve?

General Jumper. Yes, sir. We put total about--between 1,300 and 1,600 pilots through our entire system. That is for us and for our allies that we help train each year. And we absorb those into our Air Force with about 330 or so fighter pilots, maybe a little less, and the rest of them to the rest of the systems that are out there. And we do that in a series of our training bases that you all know stay very, very busy with a very high volume of aircraft and sorties that they fly. It is a superb program. Everybody wants to be a part of it and we are very proud of that program.

Mr. Wicker. Where do you think it is going to go in the coming years?

General Jumper. We think that about 1,100 or 1,200 pilots per year is where we need to be to support the force that we have now. As we look at the greater capability of the combat forces that we have, as we bring on precision-guided munitions, this is always an area that will be under review. But right now there is nothing that tells us we are going to need any less than that. Remember that the rated requirements not only for the cockpits, but you have to have rated senior officers to be able to do the war planning and to be able to advise the combatant commanders in the field, et cetera. So it is not just to fill the cockpits, it is to fill other things that go along with a total air and space force.

JOINT TRAINING

Mr. Wicker. Let me briefly ask you, General Jumper, were you paraphrased correctly in the recent issue of ``Aviation Week'' when you commented that joint training like that at the National Training Center has probably been counterproductive? And--well, were you paraphrased critically?

General Jumper. Well, yes. That was an incorrect paraphrase. The point I was making during that, and I think if you read the whole thing you will see this, is that in the close air support issue we've been dealing with in the Army, when you go out to the National Training Center what you find is the Army very properly--and I pointed this out in my interview--very properly stages maneuver forces, ground force on ground force, so they can practice the maneuvering they need to do to win the tank battle. At the same time, 52 weeks a year, they are supported by close air support that comes from Nellis Air Force Base in the form of airplanes that go out and participate in these battles.

The full weight of close air support and being able to attrit the Red Forces is not felt, because if you attrited the

Red Forces, then they couldn't get to this maneuver battle that they are trying to get to. So what we have done over the years is teach generations of Army officers that I see all these airplanes overhead in this battle. But you know what? They don't kill anybody. So that generation of Army soldiers walks out of there saying, well, this close air support didn't do much for me. All for the very right reason. The right reason is that if it had the full effect, you couldn't get to this part.

So what General Shinseki and I have agreed to do is to go back and address this problem. By the way, we do the same thing in Red Flag. In Red Flag we get together so you increase your tactical level of proficiency in the air, just like they work on their tactical level of proficiency on the ground at the National Training Center. So we have agreed that this is a problem and we are going to go back and address this and find ways to make sure that we can show the full effect of close air support as a part of our joint training.

Mr. Wicker. Thank you.

F/A-22 AIRCRAFT

Mr. Lewis. Thank you, Mr. Chairman. Thank you, Mr. Wicker. The gentleman in blue and the Secretary will be most pleased with the comments I have to make next. We have a couple of votes on the floor and then, following that, there is a brief debate on the motion to recommit that we will all have to be enamored with, and then we have a couple of votes after that. So that is going to wipe out the rest of our ability to be here. So, exercising the discretion of the Chair and the recommendations of a couple of our members, led by Top Gun, I would like to call upon--if you gentlemen give me the leave--I would like to call upon Major Colin Miller to stand, if he would. You know, we have got some questions about software, et cetera, et cetera, et cetera. But tell us about this airplane, what your experience has been. What will it do? Give us a little dog-and-pony show, Major.

Major Miller. Yes, sir. Thank you for the question. I grew up in the F-15 in the Air Force, an incredible airplane and still extremely capable. The F/A-22 is a whole new ball game, it really is, just generations ahead. The things that as a pilot--the four transformational capabilities that I see daily, the stealth, the supercruise, the integrated avionics and maneuverability--when you put them together, you really get a synergistic effect that gives you an airplane that I believe just will never be beat. The supercruise is really eye-watering for a pilot. I never thought I'd say an airplane has too much thrust, and I won't say that today. But it is close. When you put it in military power, you are really moving around. What we are seeing is about a 50 percent increase in the range of our standard weapons that we carry on a lot of the fighters.

At the same time, it really decreases your vulnerability, because now all the other weapons that are looking for you have to work a very tough thematic problem because you are moving so fast. On top of that, you are very stealthy. And so first he has to find you, then he has to figure out how to solve that problem. And we have run against the ground and air systems, and we are starting now to run in integrated scenarios against

heavily defended battlespace. And when you pull all that together, it is extremely frustrating for any force that is trying to engage you. While we are denying them shots and denying them situational awareness, the integrated avionics, when they are working, are really phenomenal. With very low work load, the pilot gets a complete picture of the battlespace that is in color. People are identified red or blue. And they are identified by platform height and whether or not they are trying to prosecute a target against you. It even tells you if they are trying to prosecute a target, prosecute your wing man, so you can help them.

So we have all that. We also have--datalink is now working in the airplane, the phenomenal force multiplier, and will bring these on soon. So when you put all these things together for a fighter pilot, that is the airplane I want to be in. I have great situational awareness and I have great capability to prosecute the attack. And in many ways I am invulnerable.

Mr. Lewis. Major, you may want to know that some years ago we would have thought we blew the lid off the Pentagon when we suggested that maybe we ought to test this baby before we just automatically leapt into a multibillion dollar potential procurement. All that you have described is fabulous, presuming all these systems are working together. And it was your civilian defense members who are concerned about the future of the Air Force and this program who insisted we test it first. It is really, really important for us to be working together. We couldn't be more proud of the Air Force, and you personally, and the job you are doing. But we want to make sure that the assets we provide for you do, you know, what the people who are on the drawing boards say they think it might be able to do.

So, gentlemen, with that, I think we ought to let all of our friends go do much more important work than here. And with that, thank you, Major. The Committee is adjourned.

[Clerk's note.--Questions submitted by Mr. Hobson and the answers thereto follow:]

Sexual Assault Scandal at the Air Force Academy

Question. It is an understatement to say that I am outraged by recent reports that male cadets at the Academy victimized more than 50 female cadets and that officials at the Academy did nothing to help them. Female cadets reporting assaults suffered reprisals by academy leaders or fellow cadets. Twenty cadets said they were ignored, criticized, or disciplined after reporting a sexual assault. Female cadets not reporting assaults kept silent out of fear that they would suffer the same reprisals visited upon their more vocal sisters. This has to stop.

With all respect, General Jumper, it gives us no confidence to read in the newspaper ``the Chief of Staff defended the generals running the Air Force Academy . . .'' If this type of poisoned climate exists, the Superintendent and past Superintendents are, ultimately, to blame. It is called responsibility and leadership, sir. Two things that it is most important to show at the training ground of future Air Force officers.

Who is responsible (perhaps the female cadets themselves, or some General who you have promoted, retired, and decorated)?

Answer. With several reviews and investigations of the Academy

situation incomplete, we cannot yet be sure we know all the facts, and we must not rush to judgment as to the personal responsibility of any individual. We intend to take another look at this issue when all the relevant information is in. As you are aware, we have replaced the leadership team at the Academy. We did so because we believe new leadership can most effectively implement the changes the Secretary and I will direct at the Academy in our Agenda for Change, which we expect to release next week, and any future changes we may find appropriate after receiving the reports of the Working Group, the Air Force and Department of Defense Inspectors General, and the review group recently mandated by the Congress. Our focus has been, and remains, addressing the issues raised.

Question. How are you going to address what has happened in the past and how are you going to prevent it from happening in the future?

Answer. As you may be aware, the Air Force is engaged in a comprehensive review of Air Force Academy programs and practices to deter and respond to sexual assaults. In connection with that review, we are looking closely at factors affecting both reporting and handling of alleged incidents of sexual assaults, including the cadet hierarchy and the relationships between the upper and freshman classes. We are also evaluating how the Academy administers cadet discipline in order to ensure there are no obstacles to the reporting of crimes. We are evaluating how we select, train, and organize the professional staff to ensure we provide the best available supervision and mentoring. We are also reviewing the process of investigating allegations of sexual assaults, as well as the awareness training, medical care, counseling services, legal consultation, victim advocacy, and spiritual support we provide to victims to ensure they receive the support that they need, and fair treatment throughout the investigative and judicial process.

While our review is continuing, the Secretary and I have made changes in Academy leadership in order to implement some significant changes to reinforce our goals to train and equip tomorrow's leaders at the Academy. We intend to ensure the safety and security of every cadet and to enhance the trust and confidence of the American people in the Air Force Academy. We will shortly announce a variety of changes including among others those regarding cadet life, Academy leadership, officer and non-commissioned officer selection and training, security for cadets, and the social climate at the Academy. These changes, which are to be implemented in time for the arrival of the entering Class of 2007 this Fall, are intended to reinforce the values of character, leadership, integrity and honor that we must instill in every cadet and future Air Force officer.

Finally, we have made it clear to the cadets that sexual assaults will not be tolerated at the Air Force Academy, and all who commit sexual assaults will be brought to justice. In addition, those who knowingly protect perpetrators, and those who would shun or harass anyone with the courage to come forward and report these crimes will be held accountable.

Air Force Institute of Technology

Question. Mr. Secretary, I would like to congratulate you and the Secretary of the Navy for concluding the 4 December 2002 Memorandum of Agreement that forms an educational alliance between the Air Force and the Navy. This MOA is an excellent first step in implementing ``jointness'' for military education and I strongly support it. This educational alliance will maintain the Air Force Institute of

Technology (AFIT) and the Naval Postgraduate School (NPS) as ``world class'' higher educational institutions; complementing each other; and ensuring high quality, relevant and responsive graduate education aligned to defense needs. Thank you.

How critical are the educational programs of AFIT and NPS for meeting the needs of the Air Force?

Answer. All programs at Air Force Institute of Technology (AFIT) are specifically designed to meet Air Force needs. The research conducted by AFIT students and faculty directly supports Air Force critical technologies. The Department of Defense and Air Force focus allows AFIT to quickly respond to new and changing Air Force requirements. While programs at the Naval Postgraduate School (NPS) meet and respond to Navy needs, in many areas the military focus is also applicable to the Air Force. The rationalization effort seeks to optimize the educational programs at AFIT and NPS to create world class institutions to meet the needs of all the Services and Department of Defense, including those of the Coast Guard.

Question. The MOA commits the two services to filling all seats at AFIT and NPS before sending students to civilian schools. How is the Air Force implementing that commitment? How is the Navy?

Answer. Air Force Institute of Technology's (AFIT's) Registration & Admissions Office (RR) is responsible for designating the source of education (AFIT, Naval Postgraduate School (NPS), or Civilian Institutions) for Air Force educational requirements. Our current guidance is that Air Force students will attend AFIT first, if the program is offered, then NPS, or finally civilian institutions. AFIT/RR is in regular contact with AFIT's graduate school and with NPS in implementing the guidance.

Question. The MOA requires the creation of a joint AFIT/NPS admissions and quota control process to provide for enrollment of students from all services and from the Coast Guard. What steps is the Air Force instituting to carry out that requirement?

Answer. While the Air Force and the Navy have separate admissions and quota control processes, the MOA requirement is being addressed in ongoing discussions between the two schools.

Question. The MOA requires the Air Force and Navy to review current AFIT and NPS policies and to establish common policies that represent best practices at both schools. What mechanisms has the Air Force put in place to accomplish this requirement, and how will you involve the faculty and leadership of the two schools in conducting the necessary review?

Answer. The draft implementation MOA is currently being reviewed by the faculties of both institutions.

Question. The MOA requires the Assistant Secretaries of Financial Management for the two services to program the resources needed to launch the alliance and ensure its success.

What specific initiatives will be funded in order to launch the alliance and make it successful, over and above those funds needed to sustain the excellence of the ongoing operations of the two schools?

Answer. The Air Force continues to research funding requirements to launch the alliance and ensure its success. The Air Force is committed to the alliance and to making sure it is resourced properly to ensure its success. The Air Force Institute of Technology (AFIT) Board of Visitors, in their March 2003 meeting, recommended that AU/CC and the Navy's CNET/CC determine those areas of the alliance that will be the most productive in terms of collaboration. AFIT/CC and NPS/CC are currently executing that tasking together.

NPS and AFIT do have different business models in terms of levels of direct and reimbursable funding--tuition payments are one area of difference. Both models work fine for the respective services at the present time. However, the services are reviewing systems to determine if a more compatible business model is necessary to further the goals of the alliance.

Question. Is there a dichotomy in that the Navy charges tuition which it keeps to lower operating expenses where the Air Force does not?

Answer. The Naval Postgraduate School (NPS) has Title 10 authority (Chapter 605--U.S. Naval Postgraduate School, Section 7045(b)) that allows the school to charge tuition and related fees and expenses for international officers and sister service officers to attend. These additional funds are used by NPS to hire additional faculty, etc., due to the limitations of authorized faculty positions. Equivalent Title 10 authority (as that for NPS) would place both institutions on equal footing to account for international and sister service officer attendees. The Air Force Institute of Technology (AFIT) does not have the equivalent authority and must allow international officers and sister service officers to attend on a space-available basis. The Air Force is currently analyzing possible AFIT requirements for charging tuition.

Question. Oversight of the education alliance is to be carried out by the respective Air Force Board of Visitors and the Navy Board of Advisors. The MOA directs that each school's governing body will interact with each other.

What steps has the Air Force taken to interact with the Navy Board of Advisors?

Answer. Oversight of the alliance is to be carried out by the respective Air Force Board of Visitors (BOV) and the Navy Board of Advisors (BOA), with interaction with each other. Air Force Institute of Technology (AFIT) and Air University representatives were invited and attended the NPS BOA meeting on 29 January 2003. Representatives from NPS BOA and the Air University BOV attended AFIT's BOV meeting on 17 March 2003.

Question. What would you think about a Joint Board of Visitors?

Answer. Separate boards recognize that Air Force Institute of Technology and NPS remain independent institutions. Close interaction will facilitate the collaboration essential to optimize both institutions. While a Joint Board of Visitors would give a single focus point for oversight of the alliance, and may emerge from on-going efforts, it would be premature, in our view, to judge the value of a Joint Board.

Future of the C-5 Aircraft

Question. General Jumper. I appreciate your designating the C-5A as the follow-on aircraft to the C-141 cargo plane currently operated by the 445th Air Reserve Wing at Wright-Patterson Air Force Base, Ohio. These planes are to be re-engined. Should that not be possible, the 445th is to get C-17s.

On 27 April 2003, Secretary Roche announced that the Airworthiness Board would conduct a review of the C-5A to determine if the airlifter fleet is too expensive to maintain and should be retired. Where is this review?

Answer. The C-5A will be the first aircraft assessed by the new Air Force Fleet Viability Board (formerly the Air Worthiness Board). The

board will assess technical and cost aspects of specific aircraft fleets, and then make recommendations to the CSAF/SECAF on whether to sustain or retire those fleets. The board will be assembled by the end of May 2003. Once the board is assembled, the C-5A assessment will start, and should be complete by October 2003.

Question. What is your personal view about what we should do with the C-5A? Does it include buying additional C-17s?

Answer. The Air Force is committed to divesting itself of legacy aircraft that are no longer supportable. Having said that, we also have airlift requirements that are imperative to the Air Force's global reach mission. The C-5A is a major contributor to this capability. In the initial stages of the C-5 Reliability Enhancement and Re-engining Program (RERP), the C-5A is part of the System Development & Demonstration (SDD) effort. The SDD process involves an extensive teardown and reconfiguration that, along with the Air Force Fleet Viability Board recommendations, will allow us to make an educated decision on the feasibility, supportability, and cost-benefit of modernizing the C-5As. If the C-5A is not found to be a good investment, then an additional buy of C-17s will be required to meet the 54.5 million ton mile per day minimum requirement for our airlift fleet.

Science & Technology Budget

Question. Overall, this has to be viewed as a disappointing budget for Air Force Science and Technology (S&T). It runs counter to a number of studies (National Academy of Sciences, Scientific Advisory Board) that called for a real increase in S&T spending. At a time when the national defense needs more scientific development for long-range planning, status quo seems inadequate.

Perhaps the biggest problem is the cut in applied research programs, which will be funded at an 8.6 percent reduction from last year. These programs are truly the seed corn for future weapons systems. Further and frankly, they also tend to pay the personnel bills at the labs, so are very important to the organic scientific workforce.

How did you set the amount of this request? Was it the Air Force or OMB?

Answer. The 8.6 percent reduction cited in this question stems from a comparison of the Fiscal Year 2003 and Fiscal Year 2004 amounts as reflected in the Fiscal Year 2004 President's Budget (PB) request. However, this Fiscal Year 2003 amount includes almost \$170 million in congressional adds. The Air Force has worked hard to maintain a balanced Science and Technology (S&T) portfolio and the fiscal year 2004 President's Budget requested amount of \$2.2 billion is actually higher than the fiscal year 2003 appropriated amount of \$1.8 billion for the Air Force S&T Program and provides for the technology development essential for the Air Force vision of an Expeditionary Air and Space Force. This amount includes \$758 million for applied research efforts--an increase of \$60 million over the Fiscal Year 2003 requested amount, which equates to seven percent real growth. Although the civilian pay portion of this Applied Research funding goes down \$20 million this is the result of a bookkeeping change vice an actual decrease in civilian pay funding--per congressional direction, civilian health care and life insurance funding for retirees was transferred back into the centrally-managed account from which it had come the previous cycle. If you subtract civilian pay and compare only the non-civilian pay portion of the applied research funding, the actual real

growth is 24 percent.

Use of Guard and Reserve

Question. In the September 13, 2002, letter to Defense Secretary Rumsfeld, with a copy to Secretary Roche, I complained about the misuse of the Guard and Reserves. Part-time reservists are being turned into full time soldiers through extended and unpredictable active duty assignments. While reservists are more than willing to do their share, especially in a time of crisis, they signed on with the expectation that periods of active service would be relatively short.

Are we using the Guard and Reserve instead of asking for the higher level of Active Component troops actually needed?

Answer. The Air Force has adequate active duty end strength. We are adjusting the Active Component force mix (not force size) to meet requirements and reduce our need to bring Guard and Reserve personnel on extended duty. We have defined stress on active duty career field areas and are working to redistribute manpower for areas of lower stress to higher stress to fulfill active duty requirements. We are also overhauling our requirements determination process. This new effort will incorporate a quicker method of determining manpower requirements that is tied more closely to UTCs (unit type code--deployment requirements) and defines levels of capability for both peacetime and wartime workloads. Ultimately, during a deployment, war planners will be able to define the capability required, select the right force to meet that requirement and then define level of capability at the home station and adjust work out appropriately.

Question. What is your Active strength and what should it be?

Answer. The beginning strength for fiscal year 2003 was 368,251; this was 9,451 over the authorized strength level of 358,800 for the end of fiscal year 2002. Air Force Active Duty End Strength for fiscal year 2003 is 359,000. The Air Force has adequate end strength and is adjusting its Active Component force mix (not force size) to meet requirements. This is a skills mix problem. We have defined stress on active duty career field areas and are working to redistribute manpower for areas of lower stress to higher stress to fulfill active duty requirements. We are also overhauling our requirements determination process. This new effort will incorporate a quicker method of determining manpower requirements that is tied more closely to UTCs (unit type code--deployment requirements) and defines levels of capability for both peacetime and wartime workloads. Ultimately, during a deployment, war planners will be able to define the capability required, select the right force to meet that requirement and then define level of capability at the home station and adjust work out appropriately.

Question. What percent of the mission is done by the Active Component, the Guard, and the Reserves?

Answer. This is a complex question because there's no easy method to directly compare the contributions of each component of our total force. For example, many members of the reserve and guard volunteer to serve and are able to contribute significantly to our wartime mission without mobilization. Trying to account for the contributions of each component to real-world contingencies can also become difficult. Many active duty members directly support combat operations from their home station because of our investments in technology. Alternatively, mobilized reserve and guard members ensure continuity of operations at active duty bases by performing the duties of active duty personnel

deployed.

With these caveats in mind, let me attempt to provide some insight into the level of contributions the reserve and guard are providing today. Our total force is composed of over 700,000 personnel. The Air Force Reserve (AFR) makes up 11 percent; the Air National Guard (ANG) makes up 15 percent; and the active component, including civilians, completes the force with 74 percent. Today, the AFR has approximately 14.5 and the ANG has 11.9 percent of their total force mobilized. Directly supporting OPERATIONS IRAQI FREEDOM, SOUTHERN WATCH, NORTHERN WATCH, and ENDURING FREEDOM, the active duty component has 12.3 percent of its personnel deployed to the theater. The AFR and ANG had 3.4 and 7.8 percent of their forces deployed, respectively.

Question. Do the Guard and Reserve requests for equipment and military construction projects reflect their share of the mission?

Answer. Yes. We build our requests for equipment and military construction by balancing the mission requirements of the Total Air Force . . . Active, Guard, and Reserve. We do not, however, develop these requests based on any sort of ``fair share'' system. Our requests are developed to meet the most pressing requirements of the Total Force, be they Active, Guard, or Reserve.

Rotational Force in Europe

Question. General James Jones, Commander of United States Forces in Europe, has discussed the possibility of moving to a United States presence in Europe made up of 1) troops on short term rotations, 2) families left at home in the U.S., and 3) ``lily pad'' compact bases scattered in the New (Eastern) Europe and Africa. Camp Bondsteel would be a model. While all bases are at risk of being closed or downsized, General Jones singled out Ramstein as a base with ``enduring value.''

What is the Air Force's opinion of this vision?

Answer. General Jones' vision fits squarely with our Air Expeditionary Concept wherein the U.S. Air Force provides combat ready forces capable of responding in hours and days to meet our nation's security requirements across the spectrum of operations from humanitarian relief to combat operations.

Our expeditionary construct already capitalizes on changing our forward presence footprint from sole reliance on garrison basing to one that uses rotational forces to provide the same level of presence. Our forces construct schedules our units for a specific time period, of approximately 90 days, thus allowing us to maintain a guaranteed amount of immediately available forces while affording our personnel the time required to perform needed training plus post- and pre-deployment actions. While this concept works well in many parts of the world, we still need to maintain permanent-party, overseas bases, particularly in Europe and the Pacific, to guarantee us access into other critical regions of the world during a time of crisis. We are studying our requirements at this time so it is premature to commit to any specific number, type, or location of bases.

The use of a rotational force may afford some possible benefits, such as allowing the families of our airmen to remain in a single location for extended periods of time, but it can present us with new challenges in retaining those same airmen as they maybe faced with multiple long deployments away from their families. As we say in our service, we recruit Airmen but we retain families. Rotational forces may place unforeseen strains on our training and experience levels at our bases depending on the frequency and duration of rotational

deployments. We also believe that having American families stationed abroad affords other nations the opportunity to directly observe our values in practice and learn that we are not so different from them. For example, parents all over the world share essentially the same concerns for their children.

While "lily pad" bases, such as Al Udeid or Singapore, are invaluable to allow us access to their regions in times of need, we still need select overseas bases, like Kadena and Ramstein, that afford us the opportunity to marshal our air and space assets prior to entry into one, or more, critical regions. In particular, Ramstein provides a critical capability as a "jumping-off point" allowing aircraft from the United States, or Southwest Asia, a guaranteed location we can rely on to refuel and repair our aircraft. Ramstein, along with our other bases in Europe today, allow us a convenient marshalling point to embark deploying North Atlantic Treaty Organization (NATO) forces for out of area operations.

Question. Are all military construction projects in Europe on hold and is it because of this or something else?

Answer. The military construction projects for certain European bases in the fiscal year 2003 enacted military construction appropriation were on hold earlier this year to allow the European Command combatant commander an opportunity to review the military construction program for his theater. His review is now complete. With the exception of one Air Force family housing project in Germany, all other Air Force military construction projects in the fiscal year 2003 overseas program are moving forward toward project award and construction.

Question. Is there the same situation for military construction projects in Korea?

Answer. We have not yet seen the final results of Pacific Command's basing study. However, we anticipate our Air Force installations in the Republic of Korea, Osan and Kunsan Air Bases, will continue to have enduring value to U.S. interests in the region. We do not anticipate that the need for the military construction requirements at Osan and Kunsan Air Bases in the fiscal year 2004 budget request and our future years defense plan will diminish in any way.

Joint Strike Fighter Weight

Question. Recent press reports have suggested that the Joint Strike Fighter could be up to 20 percent overweight, threatening the Short Take-Off Vertical Landing (STOVL) version of the plane.

How much of a problem is this and how is it being addressed?

Answer. Weight control is a significant concern on any aircraft development effort, including the Joint Strike Fighter (JSF), and we're working to get it right. The current design of the U.S. Marine Corps STOVL variant shows it could exceed target weight. The JSF Team is currently making adjustments to internal structures layout, materials composition and examining all variant designs to ensure target weights are met.

[Clerk's note.--End of questions submitted by Mr. Hobson. Questions submitted by Mr. Nethercutt and the answers thereto follow:]

Question. The budget request proposes the establishment of an Air Worthiness Board, a group of independent experts that would be charged with determining when it is no longer financially viable to keep old aircraft in service and mandating retirement of those platforms.

Please describe the intended composition, responsibilities and functioning of the board.

Answer. The board will lead a continuous process of evaluating aircraft for sustain-or-retire decisions. Approximately four aircraft fleets will be evaluated each year according to a prioritized list with the goal of completing all major aircraft within a five year period. The board will be led by a director who may be an active duty Air Force Colonel. The director will be assigned to the Deputy Chief of Staff for Installations and Logistics, and will be stationed at Wright-Patterson AFB, OH. Other board members include Aeronautical Systems Center (ASC) senior civilian technical experts from the propulsion, aircraft structures, sub-systems, and avionics fields, and a cost analyst from the Secretary of the Air Force's Financial Management and Comptroller Directorate. A sub-group of the board, known as the Inspections and Survey Team (IST), will provide the actual hands-on inspections and data analysis. Members of the IST will come from ASC as well as from specific weapons system program offices. Some IST members will be different for each aircraft fleet.

A fleet assessment will begin with the IST conducting hands-on aircraft inspections and analysis of structural integrity, safety, propulsion, avionics, and cost information at a minimum. The IST will then provide an assessment to the board, containing the continued cost burden to maintain the fleet and the capability impacts of doing so. Capability impacts include increased maintenance man-hours, increased depot hours, degraded aircraft performance, etc. The board will review the IST assessment, validate the technical and cost data, and make a sustain-or-retire recommendation to the Secretary of the Air Force and Air Force Chief of Staff.

Question. In evaluating aircraft for possible retirement, will the board consider Air Force requirements and the cost of replacing the aircraft with an equivalent capability?

Answer. No. The board's charter is to assess a fleet in order for the Secretary of the Air Force and Air Force Chief of Staff to make a sustain or retire decision based on technical and cost factors only.

Question. Why are KC-135Es being rushed into retirement before this board is even established?

Answer. We are convinced that it is essential to begin replacing the oldest combat weapon system in the Air Force inventory right away. Indeed, increasing costs and decreasing reliability and maintainability, in light of our future expectations, have already reached the point where it no longer makes sense to continue investing limited resources to keep our oldest and least capable KC-135E tankers flying. Unfortunately, the Air Worthiness Board, now known as the Air Force Fleet Viability Board was not in existence last year to assist with the partial retirement decision on the tanker E-models. In fact, the urgent and compelling need to begin recapitalizing the KC-135 fleet is exactly what prompted initiation of the Air Force Fleet Viability Board. Retirement of all KC-135s needs to be addressed now. We are choosing the less capable and more maintenance intensive KC-135E aircraft for retirement initially, and this will then give future Air Force Fleet Viability Boards a better indication of what to expect as the KC-135R fleet ages further. The Air Force simply cannot accept the risk of unknown systematic failures that could ground the fleet and

cripple the global reach of U.S. and coalition forces.

Question. What is unique about the costs associated with maintaining and supporting these aircraft that necessitate their retirement before the board could review this program?

Answer. The increasing costs and decreasing availability of the 43-year old KC-135Es have forced the Air Force to consider retirement in order to pay for the ever-increasing costs of the remaining KC-135s. The KC-135E costs continue to grow. Presently E-model engine overhauls are twice as expensive and are required ten times more often than for their R-model counterparts. Additionally, corrosion damage is driving bills that the Air Force has not budgeted for, and, in the end, would only be an interim fix. The E-model retirement provides funds for increased flight hours and manpower reinvestments on the remaining tankers. Savings from these retirements will be used to pay for the corrosion replacement/overhaul repairs needed to keep the remaining E-models flying safely. These changes give us higher utilization rates on our remaining fleet, mitigating the impacts of the retiring aircraft.

Evolved Expendable Launch Vehicle

Question. NASA has indicated that the EELV may be used as the lift vehicle for the Orbital Space Plane. Putting a manned capsule on top of an expendable rocket would likely require substantial alterations to the system, with a significant associated investment. Limited numbers of launches have already called into question the ability of the industrial base to support two separate systems. The NASA proposal would require substantial safety alterations to the system to make it ``human-rated''--and these alterations will require a significant investment.

Is the Air Force committed to supporting both variants of the EELV with sufficient launches to support both contractors?

Answer. Yes, the Air Force remains fully committed to supporting both variants of Evolved Expendable Launch Vehicle (EELV) to maintain assured access to space. Once our heritage systems fly out, all Air Force EELV class payloads will launch only on Delta IV and Atlas V vehicles. Note also that EELV is a commercial partnership with industry; the contractors market and sell their launch services to commercial launch customers in addition to the government.

Question. If tasked to support the OSP mission, would a separate human-rated vehicle be developed?

Answer. This has not been determined. The Air Force has no requirements for a human-rated vehicle at this time, but NASA is currently working directly with the two Evolved Expendable Launch Vehicle (EELV) contractors to characterize vehicle design reliability and assess potential improvements to address any human rating issues.

Question. Would NASA cover the costs associated with the new human-rated requirements?

Answer. Yes. Since human rating is a NASA-only requirement at this time, the Air Force assumes NASA would fund any associated mission-unique requirements.

Question. Would two separate vehicles be held in the inventory (cargo-rated and human-rated), or would a single vehicle, capable of supporting both requirements, be produced?

Answer. This has not been determined. NASA is currently exploring the human rating issues directly with the Evolved Expendable Launch Vehicle (EELV) contractors, and a related study is still pending. The best approach will not be known until NASA completes its study.

Question. Would human-rated versions of both EELV variants be developed?

Answer. NASA would decide this at the conclusion of its human rating study and source selection efforts.

Question. Would these new requirements create additional incremental costs that would be borne by the Air Force for future launches of the EELV, if only a human-rated variant is available?

Answer. This is presently unknown. The Air Force anticipates that NASA will assume financial responsibility for unique requirements to address any identified human rating issues.

[Clerk's note.--End of questions submitted by Mr. Nethercutt. Questions submitted by Mr. Wicker and the answers thereto follow:]

Joint Pilot Training

Question. What are your thoughts on Joint Training as it applies to undergraduate pilot training? How do you foresee this working, if at all?

Answer. Overall interservice flying training between U.S. Air Force and U.S. Navy is a success. All navigator training is accomplished at either Randolph AFB, or Naval Air Station (NAS), Pensacola. Approximately 100 Air Force and 100 Navy pilot candidates are also interservice trained. In addition to undergraduate Pilot/Navigator training, the majority of C-130 selected pilot students go through Advanced Multi-engine Turboprop training with the U.S. Navy at NAS Corpus Christi.

There are many safeguards to ensure our interservice training is effective and efficient; oversight starts from the top. The Joint Aviation Executive Steering Committee (JAESC) oversees flying training between the Air Force and Navy. This O-8 level group provides overall policy guidance. The Interservice Training Review Group (ITRG) is the O-6 level group directly below the JAESC and is tasked with executing JAESC policy decisions. Additionally, the ITRG is empowered with making decisions on interservice flying training consistent with JAESC guidance. A Memorandum of Understanding (MOU), signed by the Chief of Naval Aviation Training and AETC/DO identifies the responsibilities and processes for administrative and operational support for interservice flying training.

Considerable time and effort is put into maintaining the MOU and reviewing training requirements and syllabuses to ensure both services' training objectives are met. The largest benefit of interservice flying training is the instructor exchange. The U.S. Air Force, U.S. Navy, and U.S. Marine Corps instructors train Air Force, Navy, Marine, North Atlantic Treaty Organization and Foreign Military Sales (FMS) students providing them with invaluable instructional experience. The camaraderie and experiences of squadron mates from different services benefit the overall knowledge of the instructor force. Joint Undergraduate Pilot Training is a success story, as well as the graduate level Multiengine Turboprop training at NAS Corpus Christi.

UAV Pilot and Operational Training

Question. As UAV applications and uses become more integrated into our military, what are your plans for UAV pilot and operational training?

Answer. Unmanned Aerial Vehicle (UAV) operators currently are sourced from three sources; (1) Current and qualified Air Force pilots; (2) Current and qualified Air Force navigators holding a FAA Commercial/Instrument rating; and (3) Air Force pilots that are not medically qualified to fly aircraft but maintain Flying Class II standards according to AFI 48-123. These aviators attend UAV Transition Training at Indian Springs Airfield near Las Vegas, Nevada. Upon completion of training they are qualified to operate UAVs in an operational unit. This methodology is used today and will be used in the future.

The Air Force is also developing an initiative to allow graduates of a proposed enhanced training program, currently called Next Generation Navigator (NGN) Training, to operate UAVs. All NGN graduates will be designated as Combat Systems Officers (CSO). In this initiative, during Undergraduate NGN training, students will be identified to ``track'' to Strike/Fighter, Tanker/Airlift/Bomber, or UAVs (categorized into Remotely Piloted Aircraft and Unattended Aircraft). Upon completion of undergraduate CSO training, those selected for the UAV track will attend UAV training just as those selected for the F-15E attend fighter training. Upon graduation from the UAV Formal Training Unit (FTU) they will be qualified to operate UAVs in an operational unit. Once NGN training has matured, UAV operators will be sourced primarily from NGN training; however, there will still be some presence of pilots and CSOs that crosstrain into the UAV career field.

[Clerk's note.--End of questions submitted by Mr. Wicker. Questions submitted by Mr. Visclosky and the answers thereto follow:]

Detection of Nuclear Detonations

Question. It remains an important mission for our nation to detect whether other nations detonate nuclear devices either on the ground or in space. This would apply to the situation in North Korea, for example, where we would want to know immediately if it conducted a nuclear test and to immediately analyze and understand what was tested.

Last year I raised the issue with General Jumper that when the current DSP satellites retire, the Air Force has not yet identified which of its future satellites will carry nuclear detonation (NUDET) detectors. Nuclear detonation detectors are developed and produced by the Department of Energy for the Air Force.

Last year we discussed this issue in the context of GPS (global positioning system) satellites. I understand the focus now is on the SBIRS--high (Space Based Infrared System--high) satellites that the Air Force is developing to replace DSP.

I understand that the opportunity to place nuclear detonation detection equipment on the first 2 SBIRS--high satellites has been lost. While it is possible to put the detectors on the third and subsequent satellites, there is no funding in either the Department of Defense's or Energy's fiscal year 2004 or subsequent budgets to build payloads, integrate them onto satellites, or operate them.

General Jumper, why is there still confusion on how to continue the important nuclear detonation detection mission as we transition from the current to the next generation of Air Force satellites?

Answer. The Air Force plans to continue to provide these critical capabilities in the near future. United States Nuclear Detonation

Detection System (USNDS) sensors on the Global Positioning System (GPS) currently provide, and will continue to provide, a majority of the system's required detection capabilities. USNDS sensors on Defense Support Program (DSP) satellites are expected to remain operational for the remaining life of their host satellites. As DSP transitions to the Space-Based Infrared System (SBIRS), the classified capabilities provided by those NDS sensors will phase out.

In anticipation of this upcoming transition, the Air Force funded and performed several studies to determine possible solutions for the post-DSP era, examining many host platform options and technical approaches. Final decisions regarding how or if the geosynchronous component of USNDS will be continued in the post-DSP era are still pending. To assist in determining the path forward, the Department of Energy, through the National Nuclear Security Administration (NNSA), funded the design and production of prototype geosynchronous sensors and a testbed ground processing system. The Air Force is now preparing to integrate this experiment onto the last DSP satellite, expected to launch in fiscal year 2005. Integration is scheduled to begin 16 May 2003.

Question. What is your plan to fix this?

Answer. The Air Force is evaluating several options to obtain the necessary funding, including cooperative efforts with the users of United States Nuclear Detection System (USNDS) data. The final strategy will be resolved through existing processes that will align priorities and funding.

Question. How much is needed in fiscal year 2004 in both agencies to fix this problem?

Answer. National Nuclear Security Administration (NNSA) requires \$2.59 million in fiscal year 2004 to begin work developing a future geosynchronous neutrongamma sensor. The Air Force believes no Fiscal Year 2004 Air Force funding is necessary. If a positive decision is made regarding the future of the GEO component of USNDS, Air Force funding will be requested in fiscal year 2005.

Cruise Missiles

Question. Last year the Department of Energy submitted a billion dollar plan to the Energy and Water Subcommittee to extend the life of the W-80 nuclear warhead for Air Force (ACM and ALCM) cruise missiles until 2030. In my questions to both the Department of Energy and to you, General Jumper, I discovered that while DOE had a billion dollar modernization plan for the warhead, the Air Force had no formal plan to extend the life of its cruise missiles to 2030. Moreover, the Air Force didn't even have funds in its budget to even conduct flight testing in support of DOE's program, which is only the first step of what the Air Force would need to do to actually field DOE's modernized warhead. Consequently, the DOE program is currently being ``restructured''. I think everyone would agree that there was a major disconnect between the Air Force and Energy a year ago. I'd like to explore with you today whether that disconnect is resolved. In my bill, we appropriated \$122 million for the warhead life extension program last year and are being asked for another \$178 million this year. These are significant amounts. Yet the Air Force only plans to spend \$39 million through fiscal year 2008 on this program.

It also appears to me that there is much confusion on the exact number of warheads to be modernized, which obviously affects the cost of the program, and whether the Air Force is demanding that DOE

modernize many more cruise missile warheads than will be needed in 2012 under the Bush-Putin strategic arms reduction agreement recently ratified by the Senate.

As I understand it, the Administration's nuclear posture review instructs the Air Force to keep the B-52H bombers until 2030. Only the B-52H bomber, last delivered in 1962, can carry or launch cruise missiles. The B-1 and B-2 have no physical capability to do so. The last ALCM (air launched cruise missile) was delivered in 1986 and is past its 10 year design life. The last ACM (advanced cruise missile) was delivered in 1994 and has a 15 year design life. The Administration's plan, after expenditure of billions of dollars for modernization, will result in our nation having 70 year old aircraft armed with 50 year old cruise missiles. I wonder if this investment is worth the cost, and will result in meaningful military capability.

Under the Bush-Putin agreement, our deployed nuclear weapons will drop from about 6,000 today to around 2,000 by 2012. Has the Secretary of Defense determined the exact mix of Trident SLBMs, Minuteman ICBMs, nuclear bombs, and cruise missiles that will be in the force at that time?

Answer. The exact force mix of nuclear weapons in the 2012 time frame is not determined at this point. Discussing these numbers in detail would require a closed session. The Nuclear Posture Review (NPR) Implementation Plan of March 2003 provides the number of weapon delivery platforms (e.g., SLBMs, ICBMs, etc) projected in the force in 2012. Per the NPR and the Moscow Treaty, the total number of warheads in 2012 will be between 2,200 and 1,700. As we draw down to those numbers, the balance of specific weapons within this threshold will be examined bi-annually to determine the correct end-state for 2012. This decision will be based on our nation's progress in achieving required capabilities defined under the ``New Triad'' and whether the worldwide security environment will allow planned reductions to proceed.

Question. It seems to me that as we make a \2/3\ reduction in the nuclear force structure by 2012, that Trident SLBMs and Minuteman ICBMs (which are to receive the more modern warheads from the MX Peacekeeper missiles that are being phased out) will be given priority, and that cruise missiles will have less of a role. Do you agree?

Answer. No, because the correct balance of forces is still being analyzed. The Nuclear Posture Review (NPR) Implementation Plan of March 2003 does not provide the exact force mix of nuclear weapons in the 2012 time frame. Per the NPR and the Moscow Treaty, the total number of warheads in 2012 will be between 2200 and 1700. The balance of specific weapons within this threshold will be examined bi-annually to determine the correct end-state for 2012. This decision will be based on our nation's progress in achieving required capabilities defined under the ``New Triad'' and whether the worldwide security environment will allow planned reductions to proceed.

Question. Last year I asked you to answer this question, but your answer for the record asked me to ask someone else. Could you please send a classified paper to Mr. Hobson and to me to answer this question: Is there any military target in the world today, or one contemplated in the future, that cannot be successfully struck with an ICBM, an SLBM, or bomber-delivered nuclear bomb--that only a cruise missile can successfully attack?

Answer. The current force structure provides the warfighter with the survivability and flexibility needed to plan and prosecute both deliberate and adaptively planned nuclear response actions. The combined B-52 and cruise missile (air launched cruise missile and

advanced cruise missile) capability has singularly unique attributes designed to penetrate air defense systems and strike a potential adversary's high value targets, thereby minimizing risk to the aircraft or its aircrew. These attributes include: mission flexibility; hard-target kill accuracy; low observable characteristics; stand-off capabilities. Additional targeting clarification should be directed to OSD/LA or JCS/LA, and will likely involve input from U.S. Strategic Command.

Question. Last year you testified ``. . . sustainment of the existing cruise missile fleet was the course of action chosen until the need for a new system is identified.'' What is your plan to extend the lives of current ALCM and ACM cruise missiles to 2030? Is it feasible to do that, or will you really need a new missile eventually?

Answer. It is feasible to extend the lives of current air launched cruise missiles (ALCM) and advanced cruise missiles (ACM) to 2030. The Nuclear Posture Review (NPR) dated December 2001 states ``. . . its current force of cruise missile can be sustained until 2030.'' Air Force will support this NPR direction by implementing the Service Life Extension Programs (SLEPs). The NPR Implementer gives further direction by stating, ``The Secretary of the Air Force will complete ongoing sustainment and life extension programs and initiate required service life extension programs where necessary to sustain the ALCM and ACM until 2030 and restore required weapons systems reliability rates to design specification values.'' The SLEP studies identified aging components and potential component failures that might need replacement to sustain ACM and ALCM until year 2030.

The NPR Implementer also addresses the requirement for a new missile. It states the Air Force will continue to implement the ACM and ALCM SLEPs until the development of a new cruise missile. A next-generation cruise missile program would need to start around 2014 to ensure an initial operational capability in the 2030 timeframe.

Question. Has the Secretary of Defense formally approved a program to either extend the lives of current Air Force cruise missiles until 2030, or to develop a replacement missile?

Answer. Yes. The Secretary of Defense approved the Nuclear Posture Review Implementation Plan in March 2003. The NPR Implementer directs the Secretary of the Air Force to maintain the current Advanced Cruise Missile (ACM) and Air Launched Cruise Missile (ALCM) fleet via the Service Life Extension Programs through 2030.

Question. What exactly is funded, and what exactly is not funded, in the Air Force's Future Years Defense Plan to extend the life of its cruise missiles to 2030?

Answer. The Air Force has fully funded all known cruise missile requirements through the future year defense plan (FYDP). Additional activities will be funded beyond the current FYDP as required to extend Advanced Cruise Missile (ACM) and Air Launched Cruise Missile (ALCM) service life through 2030.

ALCM:

- Conventional/Air-Launched Cruise Missile Test Instrumentation Kit
- Inertial Navigation Element (also known as Global Navigation Control Unit)
- Functional Ground Test Facility
- Thermal Batteries and Pyrotechnical Devices
- W-80 LEP Integration

ACM:

- Joint Test Instrumentation Kit

- Functional Ground Test Facility
- Thermal Batteries and Pyrotechnical Devices
- Aging and Surveillance Program
- ACM Subsystem Simulator and Advanced Missile Simulator
- W-80 LEP Integration

Question. How much funding in then-year dollars beyond what is projected in your current Future Years Defense Plan would realistically be needed to extend the life of Air Force cruise missiles to 2030?

Answer. The following funding is projected beyond the current Future Years Defense Plan (FYDP) to extend cruise missile life to 2030. This includes Procurement; Research, Development, Test & Evaluation; Operation and Maintenance and Military Personnel funding.

Advanced Cruise Missile

[In millions of dollars]

FY10.....	57.6
FY11.....	58.2
FY12.....	58.9
FY13.....	59.5
FY14.....	63.2
FY15.....	63.9
FY16.....	64.6
FY17.....	65.3
FY18.....	66.1
FY19.....	66.9
FY20.....	67.7
FY21.....	68.5
FY22.....	70.2
FY23.....	71.9
FY24.....	73.6
FY25.....	75.4
FY26.....	58.9
FY27.....	60.3
FY28.....	61.7
FY29.....	63.2
FY30.....	64.7
Total.....	1,336.3

Air Launched Cruise Missile

[In millions of dollars]

FY10.....	59.5
FY11.....	60.1
FY12.....	60.8
FY13.....	65.5
FY14.....	66.2
FY15.....	66.9
FY16.....	67.6
FY17.....	68.4
FY18.....	69.2
FY19.....	70.1
FY20.....	70.9
FY21.....	71.8

FY22.....	73.7
FY23.....	75.6
FY24.....	77.5
FY25.....	79.4
FY26.....	59.0
FY27.....	60.3
FY28.....	61.6
FY29.....	62.9
FY30.....	64.2
Total.....	1,411.2

Question. Have you conducted a formal analysis of alternatives for cruise missile life extension programs?

Answer. No analysis of alternatives was accomplished for the Advanced Cruise Missile or Air Launched Cruise Missile Service Life Extension Programs.

Question. Have you conducted a full life cycle cost analysis for cruise missile life extension programs?

Answer. Both advanced cruise missile and air launched cruise missile service life extension program studies included a life cycle cost and risk analysis on the components with life extension concerns.

Question. Have you accomplished an operational requirements document for cruise missile life extension?

Answer. A new operational requirements document (ORD) for cruise missile life extension is not required. Air launched cruise missile (ALCM) and advanced cruise missile (ACM) acquisition was completed under the Strategic Air Command (SAC) System Operational Requirements Document (SORD). ORDs are written/updated to document system capabilities, justification, parameters, program support, and force structure required to satisfy a validated need. They serve as the foundation for acquisition. For SORDs beyond Milestone III, it is only necessary to re-accomplish the requirements correlation matrix to comply with the ORD format for programs less than Acquisition Category I (ACAT I). Both ALCM and ACM are complete with acquisition and are considered ACAT III.

Question. What actions has the Defense Acquisition Board taken on extending the life of Air Force cruise missiles until 2030, or developing a new missile?

Answer. Defense Acquisition Board (DAB) approval was not required for ACM/ALCM SLEP activities. SLEP activities were below cost thresholds requiring DAB approval.

Question. Last year, the Air Force had no funding in its budget to support any phase of the Department of Energy's W-80 life extension program. This year the situation is improved. Please answer separately, how much is in the fiscal year 2004 budget and accompanying future years program in support to Department of Energy's W-80 life extension program for:

- W-80 flight testing?
- W-80 integration and support?
- W-80 handling equipment?
- W-80 test manuals?
- W-80 publications?

Answer. The tables below provide details on W-80 related funding:

ACM:

Flight Testing.....	1.5	2.0	2.0	3.0
Integration and Support.....	1.3	1.1	.69	.94
Handling Equipment.....		2.2		
Test Manuals.....	.09	.18	.09	
Publications.....				
Totals.....	2.89	5.48	2.78	3.94

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ALCM:

Flight Testing.....	1.4	.29	1.11	2.9
Integration and Support.....	1.7	1.2	1.1	.94
Handling Equipment.....		2.3		
Test Manuals.....	.09	.18	.09	
Publications.....				
Totals.....	3.19	3.97	2.3	3.84

Question. Does Air Force expect DOE to deliver any extended life W-80 warheads that would go temporarily into storage rather than immediately to deployment? If so, why?

Answer. The Air Force will upload all refurbished W-80 warheads onto the active cruise missile inventory.

[Clerk's note.--End of questions submitted by Mr. Visclosky. Questions submitted by Mr. Lewis and the answers thereto follow:]

Consolidation of the Military Personnel Accounts

Question. The fiscal year 2004 budget request recommends consolidating the six Guard and Reserve military personnel accounts with their respective active duty military personnel appropriations. The budget requested that the Reserves personnel pay accounts be Budget Activity 7, and the National Guard's personnel pay accounts be Budget Activity 8 under the active duty accounts.

Mr. Secretary please explain the reasons the OSD Comptroller had for merging the pay accounts into one appropriation per Service.

Answer. The OSD proposal to restructure the military personnel appropriations for Active, Guard and Reserve into one appropriation is a step in the right direction. It begins to finance our enterprise like our Total Force fights--as an integrated team. This will provide additional flexibility by obviating the need to use transfers to move funds between individual programs within the merged accounts. The consolidation will also reduce administrative workload and streamline funds execution and reporting.

Question. What level or degree of increased flexibility does the Air Force gain from this consolidation?

Answer. The Air Force will be able to reprogram \$10 million into or out of the Reserve Component budget activities without prior Congressional approval. In addition to this flexibility, there will be no limit to the amount that can be reprogrammed with prior Congressional approval. With the separate appropriations, Air Force needs Congressional prior approval for any amount, and that amount is limited by the total amount of transfer authority allowed for the

Department of Defense.

Question. Will the Chiefs of the Reserve components have full management and control of their financial resources in order to execute their title 10 responsibilities for trained and ready forces?

Answer. Approved DoD accounting and internal control procedures assign fiduciary responsibility to the Assistant Secretary of the Air Force (Financial Management and Comptroller) for all Air Force funds. Management and control of the individual appropriations are delegated to the Air Force Director of Budget (SAF/FMB) for all Active funds and to the Air National Guard and Air Force Reserves for their accounts. Overall management of the consolidated Personnel account will be a SAF/FMB responsibility; however detailed program management within the budget activities for the Air National Guard and Air Force Reserves will continue to reside with those organizations.

Question. Having separate appropriations accounts for the Active and Reserve components allows Congress to monitor how well the services are executing their programs. What assurance can you give the Committee that the active components will not use the Reserve budget activities to fund their own bills or shortfalls?

Answer. Since the proposal places Guard and Reserve military personnel (MILPERS) funding in separate Budget Activities, Congress will still have visibility into its execution. The Department's proposal to restructure MILPERS appropriations begins to finance our enterprise like our Total Force fights--as an integrated team. This will provide additional flexibility to move funds between individual programs within the merged accounts and reduce administrative workload while streamlining fund execution and reporting.

Personnel Issues

Question. Please explain your active duty military personnel end strengths levels to the Committee. What was the number of personnel on board in October when you started fiscal year 2003? Was that number over the authorized end strength level for the Air Force?

Answer. The beginning strength for fiscal year 2003 was 368,251; this was 9,451 over the authorized strength level of 358,800 for the end of fiscal year 2002.

Question. Did that increase of personnel include those under a stop/loss action? Did it include any mobilized Reservists? If so, what were those numbers?

Answer. Yes, this increase did include personnel under stop/loss action, but did not include mobilized Reservists since mobilized Reservists do not count against the active duty end strength. Approximately 7,300 of the overage was due to the stop/loss program and the remaining 2,200 is attributed to exceeding accession goals and improved retention.

Question. What stop/loss action is currently in effect, and how many military personnel are affected by that?

Answer. On 13 March 2003, the Air Force announced the details of a limited Stop Loss action. Effective 2 May 2003, retirements/separations of 43 officer and 56 enlisted high-demand specialties are suspended. Projected impact (number eligible to retire/separate between 2 May 2003 and 30 September 2003) is 6,172 active duty officers/4,858 active duty enlisted and 834 Air Reserve Component officers/3,030 ARC enlisted.

Specialties under Stop Loss will be reviewed every 60 days and personnel released from Stop Loss will be afforded up to five-months transition time. As OPERATION IRAQI FREEDOM progresses and the Air

Force reconstitutes, we will discontinue the use of Stop Loss using the 60-day review process.

Stop Loss exemptions include involuntary/hardship discharges, mandatory retirements and separations, discharge by reason of conscientious objector status, members who have shipped or are scheduled to ship household goods, members on terminal leave, and members previously Stop Lossed who have since established a retirement/separation date. In addition, members may request a Stop Loss waiver if there are unique circumstances warranting exemption.

Question. Can you estimate what your end strength level will be in September 2003, the end of this fiscal year, and starting fiscal year 2004? What level of end strength is funded in the budget request for fiscal year 2004?

Answer. The current estimate of strength for 30 September 2003 is 367,100 (8,100 over the authorized level of 359,000). This overstrength is caused by improved retention and our ability to meet the accessions goals. The effect of the new stop/loss program that is expected to begin on 2 May 2003 will add to the strength overage. Even though stop/loss affects more individuals, we anticipate that those who planned to separate before the end of the year and now will not be able to could add approximately 4,700 to the strength overage, depending on the duration of the Stop Loss program currently in effect. The funded strength level included in the President's Budget for fiscal year 2004 is 359,300.

Anti-Terrorism/Force Protection Mission

Question. In the fiscal year 2003 appropriation, the Air Force received additional funding to address anti-terrorism/force protection issues. The Air Force budget request for fiscal year 2004 does not sustain the 2003 level of funding.

Please explain how the active and Reserve forces have been or are involved in anti-terrorism/force protection missions this year.

Answer. Our Total Force has been integrated to provide seamless force protection at all our installations: Active, Guard, and Reserve. The Air Reserve Component (ARC) has made huge contributions to our success in Operations ENDURING FREEDOM, NOBLE EAGLE and IRAQI FREEDOM. Through enhanced physical security measures, counterintelligence, and intelligence activities, ARC forces have implemented and continue to implement heightened levels of protection for our vital resources, key infrastructure and our most valuable asset: our people.

Question. What is the number of Reserve forces currently mobilized for Operation Noble Eagle to fill those requirements?

Answer. The total number of Air Reserve Component personnel mobilized in support of Operation Noble Eagle (ONE):

Air National Guard.....	8,193
Air Force Reserve.....	2,236
Total.....	10,429

Of this total for ONE support, approximately 40 percent (4,300+) of the personnel are considered to be working in traditional force protection/anti-terrorism specialties (i.e., physical security, counterintelligence, and intelligence).

Question. The Committee understands that the Air Force lacks the required number of Security Forces to provide the appropriate level of security for your facilities worldwide. Please explain why the Army

National Guard is supplying soldiers to support the Air Force's security requirements.

Answer. This is an example of two Services working together in a spirit of cooperation to meet a significant and enduring threat facing our Armed Forces. With the increased requirements driven by the events of 9/11, the subsequent Global War on Terrorism, and the progressive demobilization of Air Reserve Component forces, the Air Force lacked sufficient resources to provide full dimensional protection to its resources. In this case, the Army had the expertise and the available personnel necessary to help the Air Force secure its resources until such time as the Air Force can implement long-term manpower and technology solutions to mitigate vulnerabilities. This is a fit that makes sense and it supports our strong foundation for joint operations. ``One Team, One Fight.''

Question. What is the number of Reserve personnel mobilized, and the length of time they will be providing security forces?

Answer. The total number of Air Reserve Component (ARC) personnel mobilized is approximately 36,000. Security forces personnel currently mobilized worldwide are approximately 5,400. ARC security forces currently mobilized will continue to serve in a mobilized status until April 2004 or until an individual has served 24 months, whichever is earlier. The Air Force is proactively managing personnel usage, and began systematic demobilization in September 2002, in an effort to minimize impacts on individuals while still meeting mission requirements. If required by events, any new ARC mobilizations will be accomplished to satisfy primarily overseas requirements and only if the necessary force protection capability cannot be obtained from the volunteer pool (i.e., ARC members that are volunteering to serve on extended man-days).

Question. What is the incremental personnel and O&M costs associated with this mission for the Army? Describe the funding agreement between the Air Force and the Army.

Answer. Personnel costs are \$620.4 million and O&M are \$257 million. The funding agreement is that the Air Force will pay all costs associated with mobilization of these Army members.

Equipment Operation Costs

Question. Mr. Secretary, one of the recurring challenges that you face in managing your Operation and Maintenance account is the rising cost of operating your equipment. In a February 2003 report, the General Accounting Office found that the military services pay little attention to operating and support costs and readiness during development, when there is the greatest opportunity to affect those costs positively. Rather the services focus on technical achievement, featuring immature technologies during development and fielding.

Is this an accurate assessment, and if it is, what do you propose as process improvements to gain control of total ownership costs of our military equipment?

Answer. The processes highlighted in the February 2003 General Accounting Office report, for the most part, have been or will be changed or modified. The Air Force is aggressively attacking sustainment costs for both new and aging systems. For example, there is a renewed emphasis within the Air Force on the Systems Engineering (SE) effort devoted to system development. SE training has been improved through the creation of the Center of Excellence for System Engineering at the Air Force Institute of Technology. Program managers are required

to look for ways to incentivize contractors to perform robust SE to reduce sustainment costs. In fact, the status of all key SE processes/practices have been or will be a salient topic of discussion at all periodic program reviews. The above notwithstanding, the Air Force's new collaborative requirement processes simultaneously focus upon all life-cycle issues. Operators, acquirers and sustainers are brought together to jointly identify and agree upon requirements from program inception. In an attempt to reduce unknown factors that drive up Operations and Maintenance costs, emerging technologies are being further matured in the laboratory setting before being placed into program development. Similarly, immature technologies are being fully vetted based upon the need for such a technology. Contrary to past practices, immature technologies will only be inserted in a system when there is a need to counter a known threat that cannot be accomplished in any other manner. In addition to the above, the Product Support Management Plan (PSMP), along with the Reduction in Total Ownership Cost (R-TOC) plans, are required as part of the particular acquisition strategy. A key factor in the PSMP is the emphasis on life-cycle sustainment cost. This plan will ensure the system will meet the using command's requirement and provide best value. Finally, the Air Force began a massive training effort to teach the ``big picture'' of innovation, collaboration, and cost implications to all acquisition team members. The plan is to train each individual involved in the acquisition process (some 12,000 persons) by fiscal year 2007.

Facilities Sustainment, Restoration and Modernization

Question. Mr. Secretary, the Department of Defense has established standards for Facilities Sustainment, Restoration and Modernization. Sustainment is to be funded at a minimum of 93% of requirement. The restoration and modernization goal is to correct C3 and C4 conditions by 2010.

Has the Air Force funded sustainment of facilities at the DoD desired level of 93% or above?

Answer. Yes. We are funding sustainment at 95 percent of the requirement.

Question. Has the Air Force established a restoration and modernization funding plan that will achieve elimination of C3 and C4 ratings by 2010?

Answer. Our goal (based on the fiscal year 2004 Defense Planning Guidance) is to restore the readiness of existing facilities to at least C-2 status, on average, by the end of fiscal year 2010. Based on current funding projections, it is realistic that we will meet this goal.

We are concurrently targeting our investment to eliminate all C-3 and C-4 rated facility classes. Based on current funding projects (and extending them beyond fiscal year 2009 . . . our farthest-reaching funding projection), we expect to eliminate all C-3 and C-4 rated facility classes by 2014.

Question. The fiscal year 2003 appropriation included increased funding in base operations and Facilities Sustainment, Restoration and Modernization to address anti-terrorism and force protection concerns.

Did the Air Force sustain the higher level of funding for antiterrorism/force protection in the fiscal year 2004 request?

Answer. Thanks to the help of this committee, we were able to address a large portion of our facility-related anti-terrorism/force protection requirements in our fiscal year 2003 program. With the

fiscal year 2003 enacted budget, the Air Force is investing more than \$450 million in anti-terrorism/force protection facility requirements. Of this amount, more than \$200 million is being invested through our military construction program.

For fiscal year 2004, we have requested nearly \$20 million for anti-terrorism/force protection-specific projects (i.e., perimeter fencing, entry access gates) and antiterrorism/force protection design requirements embedded into other construction projects.

In addition to this investment, we still have anti-terrorism/force protection requirements programmed in our future years defense plan. Specifically, the Air Force has identified approximately \$100 million in requirements for fiscal years 2005-2009. These projects either enhance existing anti-terrorism and force protection measures or eliminate inefficiencies caused by existing workarounds. They include, for example, fencing, entrance gates, and vehicle inspection stations.

Question. What is your assessment of Air Force progress in identifying and addressing anti-terrorism and force protection concerns?

Answer. The Air Force is making excellent progress in identifying and addressing anti-terrorism and force protection concerns. As part of annual vulnerability assessments required by Air Force Instruction 10-245, we assess each installation to ensure new projects are constructed in compliance with DoD antiterrorism standards. Similarly, existing facilities are assessed in the context of the installation vulnerability assessment.

In addition to the \$450 million being invested in fiscal year 2003 and the \$20 million programmed for fiscal year 2004, we have identified approximately \$100 million in the future years defense plan (fiscal years 2005-2009) for anti-terrorism and force protection military construction projects. Projects in the future years defense plan either enhance existing anti-terrorism and force protection measures or eliminate inefficiencies caused by existing work-arounds. The projects include fencing, entrance gates, and vehicle inspection stations.

Depot Maintenance

Question. Historically, the Air Force has been able to fund depot maintenance at an average level of about 93%. For fiscal year 2004, you increased depot maintenance funding by \$226 million, but the percent of requirement achieved is only 79%, because costs grew by \$486 million. Depot Maintenance for Air Force reserve component equipment is also funded at about the same level.

The Air Force's top unfunded requirement for fiscal year 2004 is \$516 million for depot maintenance which would raise the funded level to 92% of requirement.

Please discuss the surge in Air Force depot maintenance costs, and the expected outcome if Air Force depot maintenance is funded at only 79%.

Answer. The surge in depot maintenance costs is attributed to several factors such as aging aircraft issues that affect both material consumption and direct labor hours. For example, the depot work package for KC-135E aircraft has doubled in the last 10 years, primarily due to aging aircraft issues. One factor is the corrosion on the engine struts, the point at which the engines attach to the wing. This corrosion must be repaired now or it will continue to worsen, become more expensive to repair over time, and could impact safety of flight/airworthiness of our KC-135E fleet. There are numerous examples like

this across all our fleets. If depot maintenance funding remains at 79 percent, the Air Force will defer 42 aircraft and 76 engines. We faced tremendous pressure in this budget and took some risk within depot maintenance, knowing that we will have challenges to work in fiscal year 2004. We are committed to working those challenges.

Question. What will be the impact on your depot maintenance backlog?

Answer. The Air Force will defer 42 aircraft and 76 engines in fiscal year 2004. Additionally, we will defer some level of software, other major end items, and Depot Programmed Equipment Maintenance (DPEM) funded exchangeables maintenance. We know we have challenges in fiscal year 2004 and we are committed to working through those challenges.

Spares

Question. The Air Force's second highest ranked unfunded item is \$412 million for spares. Your budget briefing materials indicate that you increased funding for flying readiness, and that you expect to fly the prescribed program, but that you have accepted some risk in the area of spares.

Please elaborate on the risk you have assumed in budgeting for spares, and how you intend to manage that risk.

Answer. The Air Force took some risk with the flying hour spares funding in fiscal year 2004. Due to the sustained nature of our effort in support of the Global War on Terrorism, the Air Force faces an extraordinary degree of uncertainty regarding the operational profiles we will actually execute in fiscal year 2004. The Global War on Terrorism influenced our maintenance patterns in fiscal year 2002 and its effects have influenced our fiscal year 2004 projected meantime between failure for repair of parts, which helped determine the fiscal year 2004 funded level. However, if the Air Force returns to fiscal year 2001 maintenance patterns, we will address strategies to assure that funding levels support flying hour execution.

Outsourcing Functions Performed by Military Personnel

Question. In order to meet OMB's competitive sourcing goal, DoD plans on competing many functions that contain military positions. The military positions are not being eliminated but being moved from commercial functions to war-fighting functions. Funds, therefore, have to be made available to either pay the new in-house organization or a contractor. The Air Force has estimated that this could cost between \$10 to \$15 billion dollars over the next five years.

Has DoD budgeted sufficient resources in order to be able to move military positions?

Answer. To our knowledge, DoD has budgeted no resources for this initiative. However, the Air Force identified a first increment for this initiative, \$2.4 billion over the Five Year Program (FYP), as our #1 unfunded priority in the fiscal year 2004 POM. Unfortunately, resources have yet to be allocated.

Encroachment on Training Areas

Question. In June 2002, GAO reported that DOD lacks a comprehensive plan to manage encroachment on training ranges. Notwithstanding the fact that the Defense Department's data indicates that the military is

ready to fight, the GAO documented that encroachment is happening and that DOD has not evaluated to what extent, and at what cost, environmental laws affect the military's ability to train.

To what extent has the Air Force separately, or as part of a DOD effort, attempted to document the effect of encroachment on the Air Force's ability to train and at what costs?

Answer. The Department of Defense is aggressively working on Range Comprehensive planning to address the impacts of encroachment and the Air Force is a full partner in support of the effort. The Air Force is developing a Resource Capability Model to identify, quantify and assess resource opportunities and degradations, based on mission requirements and identify the operational risk created when air, land, water, and frequency resources are denied or degraded. To date, we have spent approximately \$300,000 on this effort.

Question. To what extent does the fiscal year 2004 budget request provide funds to pay for the costs associated with encroachment?

Answer. The Air Force has initiated efforts to begin capturing the fiscal impact of encroachment. However, no direct method currently exists to determine the full cost associated with encroachment mitigation primarily because the costs are embedded within multiple funding sources (installation operations and maintenance accounts, environmental programs, personnel, acquisition, base operating support, and communications and frequency management, etc). For example, the Air Force is spending nearly \$38 million in military construction to acquire 417 acres for the only remaining departure corridor for live ordnance at Nellis AFB. Nearly \$35 million from the operations and maintenance account will be spent on a 10-year bird-of-prey study in New Mexico, Texas, and Arizona.

In consideration of these multiple funding sources, the Air Force is striving to better understand the impact of encroachment on operational readiness by capturing and identifying the cost embedded in these various programs.

Purchase Cards and Travel Cards

Question. Over the past two years, the General Accounting Office has published numerous reports detailing difficulties and potential fraud in the military departments having to do with the use of government travel and purchase cards. The GAO reported recently that while more improvement is needed, substantial improvements have been made. In fact, the Air Force has lower charge off rates than the Army and Navy Departments.

What are some of the actions the Air Force has taken in response to purchase and travel card problems as reported by the GAO?

Answer. With respect to the purchase card, the Air Force has issued two policy letters to quickly implement GAO recommendations, tighten controls and improve oversight. We have already mandated standard training, and we are incorporating the remaining GAO recommendations into the new Air Force Instruction.

The Office of the Under Secretary of Defense, Comptroller has formed a task force with the intention of changing many of the current card policies. Concerning the travel card, significant changes will include: 1. Tightening the credit worthiness of all individuals that receive a travel card. 2. Providing specific disciplinary guidelines for both military and civilian cardholders. 3. Modifying personnel systems to track actions against a delinquent/abusive cardholder. 4. Developing methods to control cards when a cardholder separates or

retires. 5. Developing a data mining operation to identify abuse of any travel card. 6. Implementing mandatory split disbursement for all military travelers. Split-disbursement requires a traveler to have their travel card payment sent directly to the bank by electronic funds transfer when they file their travel voucher.

Question. Have you reduced the number of cards issued?

Answer. Yes. The Air Force has reduced the number of government purchase cards from 77,580 in September 2002 to 49,621 in March 2003. This is a 36 percent reduction in the number of cards. In addition, over the past year Air Force reduced their travel cards by 100,000 or about 20 percent of the cards. Furthermore, we are working with the Office of the Under Secretary of Defense, Comptroller and supporting their efforts to further reduce the number of travel cards.

Question. How do you train your personnel to avoid problems with travel and purchase cards?

Answer. Air Force Instruction (AFI) 64-117 and policy letters mandate training requirements for all purchase cardholders and approving officials. To provide a common training baseline, all cardholders and approving officials are required to take standard training from Defense Acquisition University. Agency/Office Program Coordinators are required to take the GSA Agency/Organization Program Coordinator training. In addition, the Air Force requires both initial and annual refresher training for both cardholders and approving officials. Areas of training include: Responsibilities of cardholder, Bank electronic access program, Federal Acquisition Regulations and associated DoD and Air Force supplements.

Air Force has many different ways of training both the cardholder and our Agency Program Managers (APC's) who are responsible for travel card administration. We have web sites that provide training for both cardholders and APC's. Currently we are mailing out 1,800 new CDs to all APC's that emphasize their job functions and responsibilities. The Air Force holds two conferences each year, one for level three APC managers and another with General Services Administration for all APC's and travel cardholders to get hands-on policy and bank training. We encourage all our bases to take advantage of the bank-sponsored on-base training, where the bank travels to the base and conducts training. It is planned to develop a new training CD once all the new Office of the Under Secretary of Defense, Comptroller travel card policies are completed.

Question. Do you hold supervisors responsible for verifying the appropriateness of credit card use by their subordinates?

Answer. Yes, the Air Force holds the approving officials responsible for the government purchase card usage of the cardholders assigned to them. The approving officials must ensure that all cardholder transactions are for valid government requirements. Regarding the travel card, Air Force commanders own the program. The Assistant Secretary of the Air Force (Financial Management and Comptroller) advised Air Force commanders to monitor charge card use and be mindful of the importance of their continued leadership, careful selection and diligent training of those Air Force members entrusted with charge cards. To assist in verifying the appropriateness of travel card use, agency program coordinators use Bank of America's automated reporting system, EAGLES. EAGLES reports are a tool available to the program coordinators to identify suspicious travel card activity and investigate through regular spot checks. Commanders use this capability through their program coordinators to identify problems early and address them when they are discovered.

Question. Secretary Rumsfeld was briefed on the lease proposal by Aldridge and Zakheim on March 10th and requested additional information. Part of that briefing was a review of a new Institute of Defense Analysis (IDA) study which is critical of the lease proposal.

The lease is expected to cost about \$17 billion, with another \$4 billion needed for the service to purchase the aircraft post-lease.

Mr. Secretary, what can you tell us about Secretary Rumsfeld's consideration of the lease proposal? What were the concerns he raised?

Answer. To clarify the record, I was not present at the above-mentioned meeting that was reported in the media. As far as the costs you mentioned, the Air Force has not released cost information on the lease and cannot release cost information until the Secretary of Defense approves the lease.

The DoD leasing panel has been reviewing the lease proposal since October 2002. Discussions are occurring at the highest levels within the Department of Defense. The Air Force continues to answer all questions raised by the Department on the lease proposal.

Question. What were the issues raised in the Institute of Defense Analysis (IDA) study on the proposed lease?

Answer: To clarify the record, I was not present at the above-mentioned meeting that was reported in the media. As far as the costs you mentioned, the Air Force has not released cost information on the lease and cannot release cost information until the Secretary of Defense approves the lease.

Office of the Secretary of Defense, Director, Programs Analysis and Evaluation (OSD/PA&E) commissioned this quick-look study to estimate the cost of a KC-767. The Air Force is not the release authority for this study, however I can relay your request to OSD. The Air Force negotiated with Boeing for over seven months--I believe that IDA was hampered by having only a few weeks for their quick analysis. IDA's initial results were that the cost of the KC-767 should be less than the Air Force negotiated price. Numerous meetings and data exchanges have occurred and will continue to occur among Air Force, Boeing, IDA and OSD representatives to better understand the weapon system and to clarify differences in costing methodology.

Question. What are your thoughts on the IDA's criticism of the lease proposal?

Answer. To clarify the record, I was not present at the above-mentioned meeting that was reported in the media. As far as the costs you mentioned, the Air Force has not released cost information on the lease and cannot release cost information until the Secretary of Defense approves the lease.

OSD/PA&E commissioned this quick-look study to estimate the cost of a KC-767. The Air Force is not the release authority of this proprietary study, however I can relay your request to OSD. The Air Force negotiated with Boeing for over seven months--I believe that IDA was hampered by having only a few weeks for their quick analysis. I believe that IDA did not fully understand and evaluate the cost, configuration, and complexities of the Air Force KC-767. Numerous meetings and data exchanges have occurred and will continue to occur among Air Force, Boeing, IDA and OSD representatives to better understand the weapon system and to clarify differences in costing methodology.

Question. What financial or other advantages are there to leasing now that may not be present if we purchased at a later date?

Answer. To clarify the record, I was not present at the above-mentioned meeting that was reported in the media. As far as the costs

you mentioned, the Air Force has not released cost information on the lease and cannot release cost information until the Secretary of Defense approves the lease.

The key reasons to lease now are low interest rates, low inflation, the depressed aircraft industry, and a mature 767 production line. Leasing meets a projected need as KC-135s age and tankers require recapitalization. Leasing delivers more critical tanker capability to the warfighter in the same time period than the conventional program as funded in the Fiscal Year 2004 President's Budget. Leasing requires less money upfront and allows the Air Force to spread the operating cost over the life of the lease. Congress stipulated a multi-year lease that enabled the Air Force to negotiate firm fixed price development; production, training, and logistics support contracts that avoid the uncertainty of cost-plus contracts. Waiting to begin replacement will likely result in higher unit costs and a slower ``ramp-up'' of much needed new aircraft.

Question. Will the lease arrangement require research and development costs?

Answer. To clarify the record, I was not present at the above-mentioned meeting that was reported in the media. As far as the costs you mentioned, the Air Force has not released cost information on the lease and cannot release cost information until the Secretary of Defense approves the lease.

The KC-767 negotiated lease proposal requires no separate Air Force research and development funding. Boeing's international launch and commercial pricing of the Global Tanker Transport Aircraft (GTTA) has resulted in costs being amortized among two foreign customers (total of four aircraft) and the U.S. Government (100 jets).

Question. If so, who will be responsible for paying for those costs, the government or the contractor?

Answer. To clarify the record, I was not present at the above-mentioned meeting that was reported in the media. As far as the costs you mentioned, the Air Force has not released cost information on the lease and cannot release cost information until the Secretary of Defense approves the lease.

Research and development costs are initially borne by the contractor, but are recovered in the fixed price of the KC-767 over the course of the lease.

Question. Are there any funds in the President's FY04 budget request to support the lease if it is approved?

Answer. To clarify the record, I was not present at the above-mentioned meeting that was reported in the media. As far as the costs you mentioned, the Air Force has not released cost information on the lease and cannot release cost information until the Secretary of Defense approves the lease.

If the Secretary of Defense approves the lease of the KC-767, the Air Force will prepare a report to the four defense committees seeking lease approval. If the KC-767 lease is approved by the Secretary of Defense without changes, funding will be required in fiscal year 2004 for MILCON and other program startup costs. The Air Force has programmed \$4.1 billion in the fiscal year 2004 President's Budget (fiscal year 2004-fiscal year 2009) for a traditional tanker procurement with funding beginning in fiscal year 2006.

KC-135 E-Model Tanker Retirement

Question. Did the Air Force conduct a formal analysis to assess how

the retirement of 68 E-model tankers would affect DOD's ability to meet wartime requirements?

Answer. Yes. It was determined that the capability lost with a reduction of 68 E-model tankers (13 percent of the fleet) is equivalent to a 4-5 percent reduction in sortie generation averaged over a sustained 30-day conflict.

Question. Did the Air Force complete a comprehensive analysis of potential basing options to know whether they were choosing the most cost-effective alternative?

Answer. The tanker roadmap uses existing tanker bases in the Air Force. It is most cost-effective to use existing tanker bases and leverage the in-place support facilities and personnel. Active duty bases that transfer R-models to the reserve components will be the first to receive new replacement tankers, or in the case of McConnell AFB, their resultant force structure will increase with R-models. Reserve component basing and manpower remain unchanged, however the standard reserve component air refueling squadron is re-baselined to 8 R-model tankers by the time the first 100 new tankers are delivered to the active duty.

Question. What plans are there to replace those models with R-models for the Air Reserve Component?

Answer. Air Force active duty R-model tanker units will transfer 48 total aircraft to the reserve components during the period the E-models retire (fiscal year 2004-06). Of those 48, 16 flow to the Reserves and 32 to the Air National Guard.

Question. What is the tanker replacement (KC-767) beddown plan and how will it effect both the active duty and reserve component bases?

Answer. The active duty will continue to flow R-models to the Air National Guard, allowing them to retire their remaining 56 E-models. The Air Force plans to base the first 100 new tankers at active duty bases. Whether the Air Force leases tankers sooner or buys them later, this plan will not change. The resulting force structure will be a pure R-model reserve component and a mix of R-models and new tankers in the active duty.

Question. What is the fall-back position if leasing is not approved, and 68 air craft are cut from the inventory? Does the AF only plan on procuring a single new tanker in FY09 with all other buys outside of the FYDP?

Answer. The tanker retirements in the fiscal year 2004 President's Budget are neither associated with, nor contingent upon the proposed lease. The savings from these retirements are used to pay for corrosion repairs on the remaining tanker fleet. Although under a traditional purchase the first new tanker will not be delivered until fiscal year 2009, the Air Force does have \$4.1 billion programmed in the FYDP to recapitalize the tanker fleet. Funding begins in fiscal year 2006.

Question. Please detail the budget associated with procuring tankers, within the FYDP and beyond. Is this reduced number of tankers sustainable over the next 7-10 years if leasing does not occur?

Answer. The funding profile for tanker replacement in the Air Force program is indicated in the table below. Currently the Air Force has \$4.1 billion programmed in the future years defense plan (FYDP) which will deliver 16 aircraft by fiscal year 2011 (aircraft purchased in fiscal year 2008 and fiscal year 2009 will be delivered in fiscal year 2010 and fiscal year 2011). Outside the FYDP the preferred production rate of 18 aircraft/year will require between \$3.8 billion to 4.2 billion annually. The eventual number and type of tankers the Air Force might buy has not been determined.

[In millions of dollars]

Program Element 41221F	FY04	FY05	FY06	FY07	FY08
Total Program.....	\$0	\$0	\$154	\$375	\$1,000
Aircraft Delivery *.....	0	0	0	0	0

* Delivery occurs two years after aircraft order funding is made available.

The Air Force tankers will be more sustainable because of planned retirements. The Air Force reinvested 80 percent of its savings back into the tanker fleet, making needed corrosion repairs on the remaining KC-135 fleet. Additionally, reinvested manpower and additional flight hours will improve utilization of the fleet.

[GRAPHIC(S) NOT AVAILABLE IN TIFF FORMAT]

Question. How will crew ratios change with this decision? Please quantify personnel changes associated with this plan.

Answer. The crew ratio will increase with the decision to reduce KC-135 E-models. The Air Force retained 286 officer and enlisted positions as part of the 48 aircraft transfer to the Air Reserve Components (ARC), filling requirements in the active duty tanker program. This increased the active duty crew ratio from 1.36 to 1.75, while also largely maintaining the active duty flight hour program, flying more hours per jet. The ARC retained the manpower associated with the E-model reduction, allowing the Air National Guard to increase their crew ratio from 1.27 to 1.8, and Air Force Reserves from 1.27 to 1.5.

Question. Does this create a greater burden on the Guard to support missions, if the active force is reduced by 68 a/c? Please quantify the number of KC-135 sorties that the Air National generated annually over each of the last five years. Is this rate expected to increase significantly under this proposal?

Answer. The Air Force plans to reduce 68 primary aircraft authorization (PAA) KC-135Es between fiscal year 2004-06. As part of our recapitalization plan, 48 active duty R-models will transfer to the Air Reserve Component (ARC) allowing the ARC to retire their first 48 E-models. Additionally the Air National Guard (ANG) will standardize the size of their units at eight PAA, allowing the retirement of an additional 20 KC-135Es, and maintain all ARC unit flags. The savings will be reinvested into the KC-135 fleet for critical corrosion repairs, manpower is reinvested to increase crew ratio to 1.75 active duty, 1.8 ANG, and 1.5 Air Force Reserve Command. The active duty/ARC reduces the KC-135 PAA fleet by 13 percent, but retains peacetime flying hours to support crew training.

Yes, this creates a greater burden on the Air National Guard. These active force aircraft have generated significant sortie rates requirements that will continue to exist as they are absorbed by the ANG. The active duty to ARC mix changes from 45 percent/55 percent in fiscal year 2003 to 41 percent/59 percent respectively by fiscal year 2006. In peacetime the aircraft will log more hours per year, however, the crewmembers will fly/work the same amount. In a maximum effort wartime scenario the ARC will pick up an additional four percent of the workload.

Over the last five fiscal years, ANG KC-135 (E & R) sorties generated are: 19,859 (fiscal year 1998); 17,684 (fiscal year 1999); 16,316 (fiscal year 2000); 16,986 (fiscal year 2001), and 19,499 (fiscal year 2002). ANG sorties are expected to gradually increase under this proposal.

Question. What is the net impact on Fairchild? Grand Forks? Elsewhere?

Answer. Under the most current plan Fairchild AFB will transfer a total of 18 R-model tankers to the reserve components to backfill their E-model retirements. Grand Forks' contribution is 12 R-models, and McConnell's is 18.

Question. How many tankers are required for a two MTW scenario? What is the identified tanker requirement for a MTW involving Iraq?

Answer. Tanker Requirements Study 2005 (released 2001) was conducted by Air Mobility Command in partnership with the Office of the Secretary of Defense (OSD) Program Analysis and Evaluation division. The study was conducted to determine both aircraft and aircrew requirements to meet our nation's aerial refueling needs in the near term. The Tanker Requirements Study recommended fleet availability of 500-600 aircraft at a 1.66 to 1.92 crew ratio, depending upon the scenario.

We are confident that we can, and will, successfully execute all required missions. However, as simultaneous operations in other regions are added, tanker availability becomes more of a limiting factor, delaying deployment of forces, and extending the duration of the air war. In the future, the Air Force will continue to assess its tanker requirements and make appropriate decisions regarding force structure.

Question. Please detail the assumed savings from retiring these aircraft, including an explanation of assumed cost-avoidance. Are these savings being used entirely to recapitalize the remaining E-models?

Answer. Savings include depot costs, manpower, and engine overhauls. Cost avoidance includes expected increases to depot maintenance costs and corrosion repairs (including strut replacement). These retirements avoid needed replacement/overhaul of the E-model struts on approximately half of the fleet (\$177 million). The cost of program depot maintenance has quadrupled since 1990; cost avoidance for higher bills in the Future Year Defense Plan is approximately \$530 million.

[In millions of dollars]					
Program	FY04	FY05	FY06	FY07	FY08
Savings.....	\$75	\$107	\$134	\$153	\$177
Cost Avoidance.....	76	151	167	145	125
Total.....	151	258	301	298	302

All savings from operation and maintenance costs were reinvested back into the KC-135 fleet, directly linked to critical corrosion repairs, replacing the struts on the remaining E-models. Additionally, reinvested manpower and additional flight hours will improve utilization of the fleet.

Question. Last year, Congress added \$585.9 million with direction to ensure the Air Force properly budget for a second C-17 multiyear contract. The Air Force request this year only funds 11 C-17s in FY 2004.

Why did the Air Force choose not to fund 15 aircraft in FY 2004 as directed by Congress?

Answer. The congressional add of \$585.9 million (three aircraft in fiscal year 2003) presented the Air Force with an opportunity to revamp the remaining program. The new program is not incrementally funded (we buy 11 and get 11); and, unlike last year's request, the Advance Procurement is low (we never go above 15 percent). Additionally, we maintain Multiyear Procurement at the planned economic production rate of 15 aircraft per year. The new program avoids requesting funding early-to-need since the contractor doesn't manufacture and assemble what would have been fiscal year 2004's 12th aircraft until fiscal year 2005, meaning funding above 11 in fiscal year 2004 is early-to-need by one year. The Air Force will take advantage of existing order backlog to only order the number of aircraft required (11) to be started by the end of next year. The new program avoids the need to out-prioritize other important defense programs, since adding four early-to-need C-17 aircraft would have required over \$600 million in additional funding in fiscal year 2004.

Question. Are any of the 11 aircraft requested in the FY 2004 budget funded early-to-need?

Answer. One of the 11 C-17s requested in the fiscal year 2004 President's Budget is funded slightly (less than one month) early-to-need. The Air Force is attempting to strike a balance between funding as many aircraft as possible, without having to fund aircraft early-to-need. With the current procurement profile presented in the fiscal year 2004 President's Budget, no aircraft are funded early-to-need after fiscal year 2004.

Question. The production schedule accompanying the request indicates that rather than delivering 4 aircraft from June through August of FY04 as was displayed in the 2003 submission, no aircraft will be delivered during this period. Is this correct?

Answer. No, a break in production is not expected. Relative to the contract delivery dates, Multiyear Procurement 1 is currently 139 days ahead of schedule. Multiyear Procurement 2 resets the schedule reserve to 90 days. No changes occurred in the production schedule between the fiscal year 2003 and fiscal year 2004 submission to Congress. However, the fiscal year 2003 submission was based on multiyear procurement 1 contract dates, and the fiscal year 2004 submission was based on multiyear procurement 1 forecasted early deliveries. Therefore, the perceived 3-month ``production break'' from June through August of fiscal year 2004 results from showing actual/projected delivery dates for first multiyear procurement 1 and contract delivery dates for multiyear procurement 2. The negotiated schedule reserve is desired to allow for unanticipated events, such as the United Kingdom lease that occurred in 2001.

Question. The final aircraft under the first multiyear contract will be delivered 6 months early in May of 2004 as opposed to November. How has the second multiyear accounted for this?

Answer. Multipleyear Procurement (MYP 2) moves the contract delivery dates forward to shorten the amount of schedule reserve. The MYP 2 contract takes Boeing's internal schedule into consideration since Boeing's schedule maintains a constant production flow, and provides for a smooth transition between the two MYP contracts.

Question. If the Air Force were to modify the delivery schedule in FY 2004, could an additional 4 aircraft be put on contract prior to the start of FY 2005?

Answer. Yes, but the costs and risks outweigh the potential benefits. Modifying the delivery schedule would require increasing plant throughput and could result in increased cost/risk to the Air Force. The multi-year procurement contract was based on an economic production rate of 15 C-17s per year. Production above 15/yr does not yield any cost benefits. Increasing C-17 production rate also increases C-17 risks, decreases plant reserve/flexibility, and also increases difficulty in implementing aircraft block upgrades on time. The potential ramp-up could require extra funding for retooling and take as much as 12-24 months to implement.

Question. Interim Contractor Support increases from \$532 million in FY 2003 to \$927 million in FY 2004. Please explain the reason for the increase of \$395 million. How many total C-17 aircraft will be fielded by the end of FY 2003? FY 2004?

Answer. The increase in the Interim Contractor Support request is due to requirements to support the +60 buy, standup of new C-17 bases, sustainment support as more aircraft are delivered, aircraft block upgrades, and the purchase of spare engines. Of the \$395 million increase, \$229.2 million is due to site activation funding for McGuire AFB, NJ, March AFB, CA, Hickam AFB, HI, and Travis AFB, CA. The \$85.9 million is for increased sustainment support as more aircraft are delivered. This includes increased spares requirement due to the current operations tempo and Kosovo lessons learned. The \$50.7 million is for aircraft block upgrades. The \$29.1 million is for the purchase of spare engines. Based on Boeing's projected delivery schedule, 109 C-17s will be fielded by the end of fiscal year 2003 and 125 by the end of fiscal year 2004.

Question. What is the high altitude airdrop mission capability for the C-17?

Answer. Normally the C-17 performs airdrop operations at and below 25,000 feet. The 25,000-foot cap is primarily a physiological consideration for the aircrew, because the aircraft must be depressurized for the drop. Above this limit there are limitations to how an individual can perform their duties and stringent regulations on the use of life support equipment. The C-17 has demonstrated airdrops up to 29,000 feet (with special permission) operationally over the past year.

Question. Please provide us with an update on the status of the C-17 commercial variant program and what effect that and a NATO or foreign sale of this variant might have on the program?

Answer. The Commercial Application of Military Airlift Aircraft (CAMAA), and NATO or foreign sales of this commercial variant should have no affect on the current multiyear procurement contract of 60 C-17s (180 total).

The CAMAA program office has developed a business plan that supports a public/private venture investing in 10 commercial C-17s. The CAMAA program is currently on hold, pending the validation of a military requirement for 222 C-17s, 42 more than the current buy of 180, and demonstration that diverting 10 of those 42 additional C-17s into a CAMAA variant is both cost effective and militarily efficacious.

Bomber Requirements

Question. The Air Force bomber requirement is defined as 157

bombers (a mix of B-1, B-2, and B-52) at their full capacity. This requirement is defined in a November 2001 Long-Range Strike Aircraft White Paper.

Mr. Secretary, could you please define for the Committee the Air Force's numerical bomber requirement by aircraft.

Answer. The November 2001 Long-Range Strike Aircraft White Paper defines a bomber force structure which includes 157 aircraft. The bomber force structure includes the following number of aircraft: B-2 (21), B-1 (60), and B-52 (76).

Question. Are we currently meeting that requirement, including the ``full capability'' aspect of that requirement?

Answer. Yes, the Air Force is pursuing a time-phased modernization program that will eventually achieve full capability for our 157 bombers by 2015. The objective of the modernization program is to improve lethality, survivability, supportability, and responsiveness, all of which are necessary for the bomber force to achieve the desired ``full capability.''

Question. Is the Strike Aircraft White Paper of November, 2001, considered by the Air Force to be the bomber roadmap for the future?

Answer. No, as stated in the Long-Range Strike Aircraft White Paper, the document is not the bomber roadmap. The White Paper articulates long-range bomber force structure plans, modernization, capabilities, concept of operations, and replacement timeline. The document is a ``snapshot'' in time and is designed to reflect strategic guidance and fiscal plans; therefore, changes in the threat environment, advances in weapon technology, unforeseen increases in aircraft attrition, or any number of other variables could drive a modification, addition, or complete re-write. The Air Force's bomber roadmap is now in development at Headquarters, Air Combat Command.

Question. How often is the Strike Aircraft White Paper reevaluated? When will it be reevaluated again?

Answer: The document is a ``snapshot'' in time and is designed to reflect strategic guidance and fiscal plans. The first Strike Aircraft White Paper was completed in March 1999 and updated in November 2001. The Air Force is currently evaluating guidance and plans to determine if an update is needed.

Question. Please provide for the record a copy of the November, 2001, Strike Aircraft White Paper?

Answer. The Office of the Assistant Secretary of the Air Force (Financial Management & Comptroller), Congressional Liaison, has provided a copy to the House Appropriations Committee, Subcommittee on Defense.

B-1B Defensive Systems Upgrade Program

Question. In a letter to the Committee in December the Air Force notified that it was canceling the Defensive Systems Upgrade Program (DSUP) due to persistent cost overruns and mission failures.

What are the estimated termination costs of the DSUP program in FY03?

Answer: As noted in the ``Report to Congress on B-1 Defensive System Upgrade Program (DSUP),'' DSUP termination costs could be as high as \$90 million. That amount includes government costs to modify two fleet aircraft to replace the two test aircraft currently configured with Block F DSUP, test infrastructure previously shared between B-1 Block E and Block F and Boeing allowable termination costs. The Boeing share of the termination costs will not be finalized until

the final contract termination resolution, expected before February 2004. At this time, the Air Force plans on using \$82 million of fiscal year 2003 DSUP RDT&E funding to cover anticipated DSUP termination costs.

B-2 Bomber Modifications

Question. The FY04 request includes \$76.4 million for additional upgrades to the B-2. The primary modifications in the request are the MK82 JDAM/Smart Bomb Rack Assembly, Link 16/Center Instrument Display/In-flight Replanner, and Low Observable improvements.

What is the status of the MK82 JDAM/Smart Bomb Rack Assembly modernization program for the B-2?

Answer. The B-2 Smart Bomb Rack (SBRA)/Joint Direct Attack Munition (JDAM)-82 integration program is proceeding on schedule. Testing at Edwards AFB began in February 2003. The test period began with a full range of ground testing, which was successful. Flight testing started shortly thereafter. Both captive carry and separation tests have been conducted to date. Communications between the aircraft and the weapons have been successful. The first separation test was conducted on 5 March 2003, and, as planned, sixteen inert, unguided JDAM-82s were successfully released. Analysis of the mission data is currently underway. The next mission is scheduled for 23 April 2003 and flight testing is projected to complete by 10 September 2003.

The production portion of the SBRA program is also on schedule. The baseline contract effort to modify the first bomb racks for use by the 509th at Whiteman AFB may be awarded in early April. This award will insure sufficient SBRA assets are available to meet the RAA (Required Assets Available) requirements of four shipsets by November 2004.

Question. Can you please define for the Committee the increased weapon delivery capability that the smart bomb rack assemblies will bring to the plane in terms of current capability per type of munition, and what the capability will be once the racks are installed.

Answer. Presently, the B-2 can strike up to 16 individual targets with the GBU-31 (2000lb class weapon). The weapons are carried on a rotary launch assembly (RLA). The B-2 can carry eight weapons per RLA and with two weapons bays can carry a total of 16 weapons.

The addition of Mk 82 JDAM (GBU-38)/Smart Bomb Rack Assembly allows the B-2 the ability to carry up to 80 GBU-38 weapons. This allows the B-2 the capability to individually strike up to 80 targets in one sortie. The GBU-38 is a 500lb class weapon that can, in certain instances, strike targets where collateral damage concerns prohibit the use of a 2000lb weapon such as the GBU-31.

Question. When does the Air Force anticipate it will begin modifications to integrate the Small Diameter Bomb into the B-2's weapons capability?

Answer. The fielding of the MK-82 JDAM with the SBRA in fiscal year 2004 will dramatically increase B-2's payload from 16 JDAMs to 80 JDAMs. Because of this huge leap in capability in delivering 500lb. near precision weapons, there is no funding in the Future Years Defense Plan for Small Diameter Bomb (SDB) integration on the B-2. When the SDB's development is complete, opportunities for integration on the B-2 platform will be assessed by the Air Force.

Question. What increased weapon delivery capability would the Small Diameter Bomb bring to the plane in terms of bombs per sortie?

Answer. Given the capability provided by MK-82 JDAM (fiscal year 2004 for B-2 integration), the Air Force has chosen not to integrate

the Small Diameter Bomb (SDB) on the B-2 at this time. However, analysis shows the B-2 could carry sixty-four 250lb. weapons (SDBs) loaded on the B-2 Rotary Launcher Assembly (RLA) or 80 on the SBRA.

Question. EHF SATCOM upgrades begin in FY 2005 as compared to last year's request, which had the modification beginning in FY 2007. What is the reason for the acceleration and how was the significant program savings achieved?

Answer. Changes in the EHF SATCOM program between the fiscal year 2003 and fiscal year 2004 President's Budget submissions did not result in schedule acceleration or cost savings. In the fiscal year 2003 President's Budget, EHF SATCOM upgrades were scheduled to begin in fiscal year 2005. Due to higher Air Force priorities, funds were reduced in the fiscal year 2004 President's Budget, resulting in the procurement start date slipping from fiscal year 2005 to fiscal year 2007. These funding cuts and the program delay of two years resulted in a slight decrease in funding over the FYDP (fiscal year 2003-fiscal year 2009).

Question. Please explain for the Committee the savings identified in the Radar System Modification program. The FY 2004 budget indicates the program has been accelerated to begin in FY 2006 instead of FY 2007 as proposed last year. The total program cost has been reduced from \$1.271 billion to \$500 million.

Answer. The B-2 Radar program was mid-way through a trade study when the fiscal year 2003 President's Budget was submitted. Although the trade study examined a range of options, the fiscal year 2003 President's Budget was based on an estimate that included \$.65 billion in Research, Development, Test and Evaluation (RDT&E) and \$1.27 billion in aircraft procurement for a total cost of \$1.92 billion (fiscal year 2003-fiscal year 2009). Program start would begin in fiscal year 2003 and procurement would begin in fiscal year 2007. As the Air Force worked through the trade study, it was determined that the requirement could be met with a less expensive option, which was submitted in the fiscal year 2004 President's Budget request. The option in the fiscal year 2004 President's Budget was phased differently and included a budget of \$.77 billion in RDT&E and \$.5 billion in aircraft procurement for a total cost of \$1.27 billion (fiscal year 2003-fiscal year 2009). Procurement would start one year earlier in fiscal year 2006.

B-2 Exhaust Cracks

Question. Last year the Committee expressed concern about the reappearance of surface material cracks aft of the engines. Are you continuing to see this cracking?

Answer. Cracks are continuing to appear aft of the engines on the aft deck. As of 13 March 2003, all aircraft except two have cracks and the remaining two are expected to eventually experience cracking as well. Although these cracks do not pose a safety-off-light concern, they will propagate to a point where they impact Low Observable (LO) characteristics. The majority of the cracks are within acceptable limits at this time; it is anticipated that they will eventually grow to a point where repairs are required. Depending on the rate of continued cracking and crack growth, there is the possibility of a serious impact on mission capability.

Question. Is there anything more you know about the cause of these cracks and have they affected the aircraft's performance in any measurable way?

Answer. The root cause of aft deck cracking has not been

determined. A team of government and industry experts has been assembled to help monitor the crack growth, conduct tests, and develop a system engineering approach to conclusively determine the failure mechanism. On 25 March 2003, a contractor team started work, using fiscal year 2003 funding, to complete the structural root cause analysis. The results of that investigation will help to derive viable short- and long-term solutions.

Aft deck cracks have affected the Low Observable (LO) performance on two aircraft. External patches have been installed temporarily on these two aircraft to contain excessive cracking. The patches are considered temporary, since they do not maintain the desired LO performance.

Question. Have you determined a fix for this problem?

Answer. At this time, no permanent fix has been determined for this problem. The Air Force has developed an interim solution for aircraft with limited cracking that will maintain the desired Low Observable (LO) performance. In addition, the Air Force is pursuing an interim repair for seriously cracked aft decks that will also maintain LO performance. The root cause analysis will help determine the way ahead for a permanent solution.

Question. Is there anything in the request to address this problem?

Answer. Our government and industry team is using the available fiscal year 2003 funding to complete structural root cause analysis scheduled to be completed by September 2004. There is currently no funding budgeted for this problem beyond the fiscal year 2003 appropriation.

B-52 Stand-Off Jamming Platform

Question. The Air Force plans to use B-52s as an Airborne Electronic Attack platform by developing a pod capable of covering early warning and ground control intercept radars with particular attention to radars feeding advanced long range SAMs. The Situational Awareness Defensive Initiative (SADI), which is the follow on to the B-52s current early warning and jamming capability, is being rebaselined in FY 2004 to include this new initiative.

Why is the B-52 the best platform for this mission? Why not use a 767 or other aircraft?

Answer. The B-52 is the best platform for this mission since it is available and will be in service until 2040, can perform the electronic attack mission in conjunction with the attack missions it currently performs, has high electrical generating capability, and has the long range and loiter characteristics necessitated by the stand-off jamming role. Use of a 767 or similar aircraft as a stand-off jamming platform is not as advantageous because of the additional costs to acquire the aircraft and to operate and maintain an additional fleet of single mission aircraft. The OSD sponsored Airborne Electronic Attack (AEA) Analysis of Alternatives (AoA) study concluded, to be survivable in an anti-access threat environment, the services needed both stand-in and stand-off jamming capability. To be effective at the longer ranges posed by these threats, stand-off jamming requires a large amount of Effective Radiated Power (ERP). The B-52 can generate the necessary electrical power to power a high ERP jamming pod while maintaining its weapons carriage capability. In addition, the B-52 platform provides both the range and persistence necessary to support other assets within the Global Strike Task Force.

Question. How would a standoff jamming capability affect the

current weapons employment capability?

Answer. B-52 weapons employment capabilities will not be impacted. The B-52 maintains its existing vast combat capabilities, delivering Conventional Air Launched Cruise Missile, Joint Air to Surface Standoff Missile, Joint Direct Attack Missile, Joint Stand Off Weapon, Wind-Corrected Munitions Dispenser, and the Miniature Air Launched Decoy weapons, while performing as a stand-off jammer simultaneously.

Question. What requirement/capability changes are being made to the B-52 stand off jamming mission?

Answer. The B-52 has an ALR-20A panoramic receiver that due to serviceability issues needs replacing. An existing requirement to replace the ALR-20A with the Situational Awareness Defensive Improvement (SADI) has been modified to incorporate enhanced capabilities to control the jamming pod. The jamming pods will be composed of electronically steerable arrays and will replace the external fuel tanks on the B-52.

Question. Funding provided in FY 2003 is to carry the program through FY 2004. What efforts will this \$22.4 million be used for over this two year period?

Answer. The \$22.4 million will be used for risk reduction efforts and trade study analysis to define the new program cost and schedule and aid in final source selection of the new Situational Awareness Defensive Initiative architecture.

F-16 Aircraft Procurement Cancellations

Question. In the FY 2003 request, the Air Force had proposed to begin purchase of an additional 6 aircraft in FY 2004 and 6 aircraft in FY 2005 at a total cost of \$459 million. The FY 2004 budget deletes the request for any additional aircraft and realigns \$63.7 million of the proposed funding to F-16 modifications for a net savings of \$395 million.

What is the Air Force's argument for deleting funding for the additional aircraft as proposed in the FY 2003 request?

Answer. The Air Force determined that it would be more cost effective to invest the funds originally to be used to procure the remaining (12) F-16 Block 50s into programs that will upgrade the F-16 Block 40 to a similar capability as the F-16 Block 50. To accomplish this, funds were placed into Common Configuration Implementation Program, Falcon STAR (Structural Augmentation Roadmap), and High Speed AntiRadiation Missile (HARM) Targeting Systems R7.

Question. What drove the increased unit flyaway costs above what was anticipated when the FY 2003 budget was submitted?

Answer. The increase in unit flyaway costs was driven by higher than anticipated funding requirements for the APG-68 radar (required to match USAF fielded version) and escalation of diminishing manufacture source costs (parts obsolescence).

Question. While funds made available from the deletion of the additional aircraft have been reinvested in aircraft improvements, this amounts to only \$63.7 million above what was anticipated when the 2003 request came to Congress. What higher priority programs are being funded with the remaining \$395 million in savings?

Answer. The Air Force reinvested \$103.8 million into F-16 modifications for the Common Configuration Implementation Program, Falcon STAR structural augmentation program, and HARM Targeting System. Examples of other programs the remaining ``savings,`` were invested into are B-2 Ultrahigh frequency satellite communications, F-117

expanded data transfer system, contract logistics support for F-16/HH-60, and munitions programs.

Question. How can the capability gained from these modifications outweigh the loss of 12 operational Block 50 aircraft?

Answer. By reprogramming a portion of the funds, funding disconnects in the top three F-16 modernization/structural programs are eliminated. This action funds dramatic improvements in the operational capability of our F-16 Block 40/50 fleet, approximately 650 jets. These three programs are: (1) High-Speed Anti-Radiation Missile (HARM) Targeting System Revision #7; resulting in suppression of enemy air defenses (SEAD) improvements; (2) Common Configuration Implementation Plan--provides a near-peer capability for all Block 40/50 aircraft giving these aircraft flexibility to perform all multirole missions (Precision Attack, SEAD/Destruction of Enemy Air Defenses (DEAD), Air Superiority), not just one or two specialized missions; and (3) Falcon Star, a structural modification program that insures all F-16s (including the early Block 25s and 30s) can reach their design life of 8,000 flight hours. The elimination of 12 jets in order to fund these programs is prudent.

Question. Will Foreign Military Sales sustain the line?

Answer. Yes. The line is virtually only producing aircraft for Foreign Military Sales (FMS) customers (with the exception of one United States Air Force F-16 from the fiscal year 2001 budget slated for production in December 2004). We expect a Letter of Offer and Acceptance from Poland with the month for approximately 48 aircraft, the production line is scheduled to make 349 aircraft--348 for foreign customers and one for the United States Air Force. This will keep the production line open until December 2008.

Question. What Foreign Military Sales do we have?

Answer. As of Wednesday, 19 March 2003, foreign customers have ordered a total of 2113 F-16s. 1814 have been built, with 299 remaining to be produced.

F/A-22 Raptor Avionics Problems

Question. Initial Operational Test and Evaluation is presently scheduled for August of 2003. The greatest risks to certification of F/A-22 for IOT&E have been identified as avionics test progress, software development, flight envelope expansion, and test aircraft configuration.

Instabilities and problems with the Electronic Warfare (EW) and Communications, Navigation, and Identification (CNI) subsystems have seriously delayed the progress of the avionics flight test program.

The F-22 avionics recently demonstrated a 90-percent start up and 8.8-hour run time in the avionics lab. However, when transferred to the aircraft, avionics only achieved a 1-hour run time before system crash. The Air Force has newly activated a second Avionics Integration Lab in Marietta to address avionics instability issues. In addition, OSD convened an independent Avionics Red Team to assess avionics development and status.

What were the findings and recommendations of the Red Team?

Answer. Their findings reflected that systems engineering processes lacked the rigor necessary to meet the schedule constraints. The Red Team recommendations center on implementation of new software development tools and data capturing methods for finding and fixing the root causes of instability events. The team went on to state that, after we implement these new tools, there is no reason we can't resolve

the stability issue. They agreed the architecture appears sound and the stability issues are normal for a system of this complexity.

Question. What has the Air Force done to implement Red Team recommendations?

Answer. We are implementing the Red Team's recommendations to strengthen the key systems engineering processes to better understand and correct stability related issues. By the end of June, the recommended data collection tools will be fully implemented to allow identification and correction of the software instability root causes. Adding functionality is on hold until the software is stabilized. Improvements to the current version are being implemented in smaller increments to better isolate and assess stability progress.

Question. Has the program been able to identify why the avionics has such greater stability in the Avionics Integration Lab verses on the aircraft itself?

Answer. Run time stability differences are attributable to differences between lab and aircraft configurations, to include cable lengths, number of apertures, environment, and hardware. The Avionics Integration Lab is being changed to better replicate the aircraft. For example, the lab changed the power-on sequencing so as to replicate aircraft. Additionally, the lab now employs more extensive communications to simulate an aircraft under testing conditions. The Program Office has identified several differences between the lab and the aircraft and these differences have been corrected.

Question. Mr. Secretary, in your opinion, will a stable, operationally effective, and suitable F/A-22 avionics suite be delivered for the August scheduled Initial Operational Test and Evaluation?

Answer. The program remains event-driven. We will not begin Dedicated Initial Operational Test and Evaluation (DIOT&E) until we have delivered a stable, effective, and suitable avionics software suite. As such, DIOT&E is currently estimated to start in October 2003.

Question. If a stable, operationally effective, and suitable F/A-22 avionics suite cannot be achieved prior to the scheduled IOT&E, will the Air Force still proceed with IOT&E?

Answer. No. Dedicated Initial Operational Test and Evaluation (DIOT&E) start is an event-driven milestone--we will not begin DIOT&E until we are ready to succeed. Based on remaining development work, we are estimating a DIOT&E start date of October 2003. This provides 60 days (from previous start date of August 2003) to implement aircraft and laboratory changes necessary to achieve software stability.

Question. What is the standard the program is trying to achieve to qualify as a stable, operationally effective, and suitable F/A-22 avionics suite?

Answer. The F/A-22 program objective for runtime stability and start-up performance at the start of Dedicated Initial Operational Test and Evaluation are 20 hours and near 100 percent, respectively.

F/A-22 Attack Role's Effects on Avionics Problems

Question. Underlying the avionics challenges is a problem in how the Air Force implemented their software development efforts. The proper approach requires ensuring that all the bugs are worked out of the software that provides a basic level of capability before adding the next level of capability. Instead the Air Force continued to add new software modules, which introduced new bugs before the old ones were solved.

Mr. Secretary, at what point in the development of the Raptor was the decision made to add an attack capability?

Answer. The requirements of the attack capability has been inherent in the aircraft since 1993 Program Management Directive added the Joint Direct Attack Munition capability to the development program and the Operational Requirement Document was updated in 1996 to reflect the multi-role capability of the aircraft. In September 2002, the Chief of Staff of the Air Force and I announced the re-designation of the F-22 as the F/A-22. This was done in part to re-emphasize and remind members of the defense community of the inherent air-to-ground capabilities in the current design and the improved strike capability to be realized through planned spiral modernization.

Question. Did the decision to add the attack mission to the Raptor's capability affect the avionics development and in any way contribute to the instability of the software?

Answer. No. Neither current nor future F/A-22 air-to-ground capabilities are in any way related to the current avionics instabilities being seen in flight test. The Joint Direct Attack Munition (JDAM) software module has not yet been integrated into the F/A-22 avionics software. Future air-to-ground capabilities (beyond JDAM), as captured in the F/A-22 Spiral Modernization Roadmap, are also not part of the current software loads nor contributors to avionics instabilities.

F/A-22 Raptor EMD Cost Growth

Question. The Air Force has identified \$876 million in cost growth in the Engineering and Manufacturing Development (EMD) funding for the F-22 program (FY03-06). To cover these additional costs, the Air Force is delaying modernizations in the aircrafts capabilities and reducing the number of aircraft procured in Lot 3 from 23 to 20, and in Lot 4 from 27 to 22.

Mr. Secretary, you were recently quoted in Defense Daily as saying ``We are now at a point where we are cutting down on the cost curve'' on the F/A-22. What developments have occurred or what data have you seen which would lead you to make this statement?

Answer. The aircraft cost is decreasing. The Lot 3 aircraft costs are 11 percent less than Lot 2, and 46 percent less than the initial production lot. Continued program stability will enable supplier confidence and is critical to future cost reductions. Supplier confidence leads to increased supplier investments, reduced production costs, and ultimately, maximized production quantity under the ``buy-to-budget'' acquisition strategy.

Question. In fact, haven't the actual costs been consistently higher than the Air Force estimate?

Answer. No, actual production costs have not been consistently higher than the Air Force estimates since 2001. The Air Force uses a Target Price Curve (TPC) agreement to incentivize Lockheed-Martin and Pratt & Whitney to meet cost goals for the airframe and engine, respectively. The TPC agreement has, until Lot 3, been an effective tool for estimating actual costs. All lot buys from Production Representative Test Vehicle (PRTV) I through Lot 2 have met their TPC goals. The most recent lot placed on contract, Lot 3 (fiscal year 2003 funds), is the first lot of aircraft that did not meet its TPC goal. However, the Lot 3 unit costs are still less than Lot 2. The higher-than-expected Lot 3 cost affects the cost curve for the remaining lots. These effects, however, are already included in the latest buy estimate

of 276 total aircraft. Still, it is important to note that unit costs are consistently decreasing with each successive lot, to include Lot 3.

Question. What planned modernizations will be delayed due to the reprogramming of these funds to cover the overrun?

Answer. Candidate capabilities that have been delayed include air-to-ground radar modes, Link 16 transmit, helmet-mounted cueing system, and Small Diameter Bomb integration.

Question. If we had the F/A-22 today, what could it do in Afghanistan and Iraq that we couldn't otherwise already do?

Answer. In Iraq, our forces had the luxury of 12 years of no-fly zone operations to degrade and destroy their integrated air defenses and pave the way for quick entry of coalition ground forces if required. A stealthy F/A-22 fleet would allow the same capability against adversaries with more advanced air defenses.

F/A-22 GAO Report Supports Reducing Production Rate

Question. The GAO issued a report on March 14th citing numerous problems with the test aircraft, concluding that the F/A-22 program has not met key performance, schedule, and cost goals, and recommending that the annual production rate not exceed 16 aircraft until operational testing is complete (scheduled for July, 2004).

Mr. Secretary, General Jumper, could you please give us your response to the criticisms raised by the GAO report, and their recommendation to slow the production rate?

Answer. The Air Force strongly disagrees with the GAO recommendation to slow the production rate. The GAO's rationale is that the Air Force should limit annual production at 16 aircraft until the need for future modifications can be determined. In fact, in December of 2002, the Department of Defense certified to Congress that savings afforded by procuring greater than the 16 aircraft far exceeds potential retrofit costs. Flight, fatigue, and static test activity have been extremely successful and do not indicate the need for any further structural updates. The F/A-22 is already meeting or exceeding all key aircraft performance parameters.

The GAO report also neglects to examine the subsequent impacts of their recommendations. Slowing the production rate will lead to increased program costs as supplier confidence decreases, ramp rates fail to achieve maximum efficiency, learning curve projections fall short of expectations and inflation is allowed to factor further into the equation. In addition, slowing production delays delivering the F/A-22's revolutionary capabilities into the hands of the warfighter.

Question. Is the vertical fin buffeting solution under test or has it been incorporated into the manufacturing line? What is the associated cost?

Answer. The F/A-22 fin buffet solution has been validated and fully flight-tested for altitudes above 10,000 feet. The actual solution requires minor retrofits for Lot 1 and prior aircraft. The cost to retrofit all affected aircraft is \$2 million. For Lots 2 and beyond, the fixes are already incorporated in the manufacturing line. Flight test of the fin buffet solution for the flight envelope below 10,000 feet is scheduled to begin in May 2003, as part of the already scheduled envelope testing for that flight region. However, it is important to note that our analysis for the region below 10,000 feet predicts no further modifications will be needed.

Question. What modifications have been made to address the higher than predicted aft fuselage temperatures and thermal management system

deficiencies? Are these modifications under testing or have they been incorporated into the production line?

Answer. To mitigate the high temperatures, we've developed and demonstrated the following modifications: addition of thermal blankets to protect specific high temperature areas, replacement of the most aft internal vertical frame with Titanium and insertion of copper shims between a specific Titanium-Titanium interface. Formal qualification testing is also already underway. These modifications have been completed on the aircraft that will conduct Dedicated Initial Operational Test and Evaluation (DIOT&E). Production Representative Test Vehicle II through Lot 2 jets will be retrofitted after they are delivered. Finally, for Lot 3 and beyond, these modifications have already been incorporated into the production baseline.

Question. Has the horizontal tail redesign been incorporated into the production line? What is the estimated cost of the horizontal tail redesign? Will aircraft continue to be delivered while a redesign is occurring? Will you retrofit previously delivered aircraft with the new tail?

Answer. Yes, the horizontal tail redesign is now part of the Lot 3 and beyond production baseline. We redesigned the horizontal tail as a Producibility Improvement Project (PIP). The redesign cost is about \$15.7 million, but because the redesign is a PIP, it will result in a total production savings of \$183 million (return multiple of 11.6). It is important to note that the existing tails are fully capable through periodic in-service inspections throughout their service life. Hence, there is no plan to retrofit previously delivered aircraft.

Lack of F/A-22 Integrated Diagnostics for Maintenance at IOT&E

Question. Development and integration of fully integrated diagnostics has slipped to a software block that delivers after the Air Force's planned start of IOT&E. Without integrated diagnostics, maintenance carried out in accordance with the current F/A-22 maintenance concept will not be possible and contractor logistic support, to include special test equipment and personnel, will be required.

Mr. Secretary, will fully integrated diagnostics be delivered in time for IOT&E?

Answer. No. The maintenance concept for Initial Operational Test and Evaluation (IOT&E) does not require fully integrated aircraft Diagnostic & Health Management (DHM) software. The program is therefore not planning to deliver the full capability for the start of IOT&E. The IOT&E maintenance concept and the corresponding required DHM functionality to fulfill that concept have been approved by both the Air Force Operational Test and Evaluation Center (AFOTEC) and Air Combat Command. IOT&E is event based--testing will not start until the agreed-to set of DHM functionality is complete. Full DHM functionality will be tested as part of Follow-On Test and Evaluation.

Question. If not, do you anticipate contractor logistic support and special test equipment and personnel will be required?

Answer. Yes. The approved Initial Operational Test and Evaluation (IOT&E) maintenance concept includes the use of field service representatives and special test equipment (STE) to mitigate increased aircraft turn-around times. As mentioned, the full DHM functionality to be delivered and tested during Field Operational Testing and Evaluation will eliminate the use of field service representatives and STE.

Question. Will this increase costs in the testing program?

Answer. Yes. The requirement for the use of special test equipment (STE) will drive minimal additional labor costs resulting from the need to have sustained contractor support for STE operations and maintenance. No additional STE will be procured, as testing will use the F/A-22's initial inventory of STE. These costs are included in the latest Engineering and Manufacturing Development (EMD) cost estimate and are fully funded.

F/A-22 Envelope and Flight Monitoring

Question. All F/A-22 test aircraft today have multiple operation limitations. All are monitored during flight for unacceptable loads/stresses. Missions have been terminated early as a result of exceeding monitored load and/or temperature limits. IOT&E requires both an adequate flight envelope and can not occur if this monitoring is required.

Is the GAO report correct in stating that to prevent heat buildup during flight testing, the aircraft is restricted to flying just over 500 miles per hour, about the same speed as a modern jet liner, and that with heat sensors in the rear portion of the aircraft, it slows down whenever the temperature approaches a certain level?

Answer. The GAO report is correct for the nine Engineering & Manufacturing Development (EMD) airframes only. Three of the EMD aircraft will support Initial Operational Test and Evaluation (IOT&E) and have already been modified to mitigate heat build-up. The remaining aircraft will be modified upon delivery or on the production line. Production Representative Test Vehicles through Lot 2 aircraft will be modified upon delivery. Lot 3 and beyond aircraft will have the modifications as part of the production line. These aircraft will have no airspeed envelope restrictions.

Question. Mr. Secretary, in your opinion, will the F/A-22 be able to achieve an adequate flight envelope and unmonitored flight clearance in time for the scheduled IOT&E?

Answer. Yes. Based on the current test point burn rate, F/A-22 will achieve an adequate flight envelope and unmonitored flight clearance in time for Initial Operational Test and Evaluation (IOT&E). The current plan will clear the envelope by August 2003 in time to meet the currently projected IOT&E start date of October 2003. It is important to note that entry into IOT&E is event-driven. One of the criteria for starting operational testing is having the required flight envelope available.

Question. What is the standard the program is trying to achieve to qualify as an adequate flight envelope and unmonitored flight clearance?

Answer. The Air Force is currently expanding the F/A-22 flight envelope through the flight sciences test program at Edwards AFB. Aircraft #4002 and #4003 are instrumented test vehicles that are capable of monitoring air loads across all the flight control surfaces for establishing and clearing structural limits as well as validating computer performance models. Initial Operational Test and Evaluation (IOT&E) will begin with non-instrumented aircraft after #4002 and #4003 have cleared the 9G symmetric and 7.2G asymmetric envelope above 10,000 ft. Recently, the Air Force Operational Test and Evaluation Center (AFOTEC) added an envelope requirement below 10,000 ft for IOT&E. Based on the current burn down rate, this expanded envelope will be cleared by IOT&E start. This standard has been agreed to by the AFOTEC, as well as DoD Director of Operational Test and Evaluation (DOT&E) as being

production representative.

Lack of Many F/A-22 Operational Capabilities

Question. Significant operational capability is being deferred until after the start of IOT&E and completion of EMD. Deferred testing includes ferry configuration, external stores, and JDAM carriage release, full gun employment envelope, full use of speed brake function, and numerous system specification compliance test points. Deferred mission avionics capabilities include JDAM employment, AIM-9X integration, helmet mounted cueing system integration, and Joint Tactical Information Distribution System transmit capability.

With so much operational capability being deferred until after the start of IOT&E and completion of EMD, do we not run the serious risk of testing aircraft that are not combat representative?

Answer. The Initial Operational Test & Evaluation (IOT&E) aircraft will be combat representative and will closely match the Initial Operational Capability (IOC) configuration with few exceptions. We do not intend to test an aircraft that is not combat representative. The F/A-22 was designed with four revolutionary capabilities: stealth, supercruise, advanced maneuverability, and integrated avionics that will be extensively tested during IOT&E. The only significant EMD-deferred operational capability not planned for IOT&E is Joint Direct Attack Munition employment. This along with other minor deferred capabilities will be tested in Follow-On Test & Evaluation (FOT&E) prior to IOC.

Question. Do we not face a high risk of increased program costs if we run into significant obstacles in fully incorporating their capabilities?

Answer. Yes, increased program costs could result if unexpected significant obstacles are encountered as future capabilities are developed and integrated on the F/A-22. However, the program is confident that it has the right approach to manage technical and cost issues that minimize the risk associated with future capability integration.

Conventional Warhead Intercontinental Ballistic Missile

Question. The Pentagon and Air Force are considering converting some of the long-range, ground-based nuclear missiles into nonnuclear rockets that could be used to strike states like Iraq and North Korea on short notice. The Air Force Space Command in Colorado Springs will begin formally exploring the idea of converting some Minuteman III missiles this fall in a two-year analysis of alternatives.

At what level in the Air Force organization is consideration being given to converting long-range, ground-based nuclear missiles into conventional rockets?

Answer. Let me first respond to your statement. I believe some clarification may be necessary. The Conventional Ballistic Missile (CBM) concept differs from others that currently have funding programmed in the Future Years Defense Plan (FYDP). In fiscal year 2004, Air Force Space Command (AFSPC) will begin formal analyses of two potential programs that are separate and distinct from the CBM concept referenced above: Per Nuclear Posture Review (NPR) direction, AFSPC will start a two-year Analysis of Alternatives (AoA) for the Land-Based Strategic Nuclear Deterrent, a potential follow-on system to begin replacing the aging Minuteman III force by 2018. A significant life

extension effort is now underway for the Minuteman III force, designed to ensure system viability through 2020.

In addition, AFSPC will begin to analyze options for providing a prompt conventional global strike capability, by means of a Common Aero Vehicle. While the method for delivering such a system is not yet determined, options may include an ICBM like boost vehicle. This CBM concept has been discussed at AFSPC and the Air Staff. It is only one of several possible alternatives being examined to meet the NPR goal of enhancing our deterrent posture with a mix of conventional and nuclear advanced concepts to provide the widest possible range of options for our nation's leaders. These internal discussions simply allow us to weigh alternatives and in no way represent a decision to design, produce or deploy a CBM. In short, there is no developmental CBM effort underway, nor is one programmed in the current FYDP.

Question. With regard to the consideration being given to putting a conventional warhead on an ICBM, how is the Air Force addressing the concerns that our adversaries, regardless of whether it is a conventional warhead, could portray any launch of an ICBM as a nuclear first strike?

Answer. In order for an adversary to have the potential to portray the launch of a conventionally tipped ICBM as a nuclear strike, they would need to have early warning sensors capable of detecting the launch of an attack. Only Russia has such a capability and we do not consider them to be an enemy, though they are not a traditional ally. A series of agreements are in place to reduce the risk of misunderstanding: The 1988 Ballistic Missile Launch Notification Agreement and the 2000 Pre-and Post-Launch Notification Agreement call for advance notice of ICBM launches. In addition, the 2000 Shared Early Warning Agreement provides for sharing of information derived from early warning sensors. The latter two agreements have been signed but have not yet been implemented. Finally, the 1971 Accidents Measures Agreement calls for notifications in connection with events that have the potential to create the risk of nuclear war, including certain launches and ambiguous incidents involving detection of objects from early warning sensors. This information sharing regime provides satisfactory protection against the risk of misunderstanding while simultaneously preserving the operational security necessary for system effectiveness.

Question. What funds are included in the FY2004 President's Budget in support of this analysis?

Answer. There is currently no funding programmed specifically for Conventional Ballistic Missile.

Question. Will the analysis of alternatives include any research or development efforts?

Answer. As stated previously, there is currently no funded analysis for the Conventional Ballistic Missile (CBM) concept. This has simply been an internal discussion to allow us to weigh alternatives. In no way does this represent a decision to design, produce or deploy a CBM.

Question. How would such a conversion of missiles affect current treaties in force?

Answer. Intercontinental Ballistic Missiles (ICBMs), including the Minuteman III, are currently subject to the Strategic Arms Reduction Treaty (START). START does not distinguish between nuclear and conventional warheads. Therefore, deploying a conventional warhead on an ICBM would have no effect on the United States' ability to continue to comply with START.

Question. This proposal has been considered by the Defense

Department before. What were the results of any prior consideration and what information does the Department have as a result?

Answer. A Conventional Ballistic Missile Advanced Concept Technology Demonstration was funded by Congressional adds in fiscal year 1997, 1998, and 1999. Concept and design work for a high-speed precision penetrator front end, to be tested on an excess Minuteman II booster, proceeded through critical design review. However, DoD terminated the effort due to lack of firm requirements and absence of programmed funding to continue the effort beyond fiscal year 1999. Residual fiscal year 1999 funds were applied to other projects following consultation with Congressional committees.

Low-Yield Nuclear Weapons

Question. The Air Force is pursuing legislative relief from a 1994 Defense Authorization Act prohibition against doing any research and development that could lead to production of low-yield nuclear weapons. The Air Force has a research program approved last year and run by STRATCOM for a ``robust deep earth penetrator''. STRATCOM has requested proposals to begin R&D on the target analysis system.

Mr. Secretary, is there any conflict between the 1994 National Defense Authorization Act's prohibition against any R&D which could lead to production of a low-yield nuclear weapon, and the Air Force's ``robust deep earth penetrator'' program?

Answer. We do not have a ``robust deep earth penetrator'' program. However, we are considering developing a Robust Nuclear Earth Penetrator (RNEP). It is our view that development of the RNEP does not conflict with the 1994 National Defense Authorization Act's prohibition against any research and development that could lead to the production of a new low-yield nuclear weapon. RNEP, if approved for production, would involve modifying an existing weapon to enhance its penetration capability and providing an external guidance package to improve accuracy.

Question. If this prohibition were lifted, is this the direction you would take this program in?

Answer. The prohibition contained in the 1994 National Defense Authorization Act does not apply to the Robust Nuclear Earth Penetrator (RNEP). The RNEP program will proceed independent of any relief from the 1994 National Defense Authorization Act. Currently, the Air Force has no plans to request development of any new nuclear weapons, including low-yield weapons. However, lifting the present prohibition would allow us to explore the full range of options that could strengthen our ability to deter, or respond to, new and emerging threats. Even if lifted prior Congressional approval and authorization is still required before full-scale development of any new weapon can begin.

Question. If the prohibition were lifted, given the current state of the penetrator program, how long would you estimate it would take to have a functioning low-yield nuclear weapon capable of holding hard and deeply buried WMD threats at risk?

Answer. The prohibition contained in the 1994 National Defense Authorization Act does not apply to the Robust Nuclear Earth Program (RNEP) and therefore does not impact this effort. Currently, the Air Force has no plans to develop or deploy a new low-yield nuclear weapon for holding hard and deeply buried weapons of mass destruction at risk.

Countermeasures for Large Aircraft

Question. What contribution has the Air Force made to the review of ways to protect commercial aircraft from shoulder fired anti-aircraft missiles?

Answer. The Air Force has participated in Office of the Secretary of Defense working groups to define DoD positions on issues raised by the National Security Council/Office of Homeland Security Task Force on man portable air defense systems (MANPADS). Additionally, the Air Force had participants on the ``Red Team'' that assessed the technical options to address the MANPADS threat to commercial aviation. Further, the Air Force has conducted its own ``quick look'' study on the MANPADS threat and Air Force capabilities to defeat the threat.

Question. Please describe for us the system under development for our large military aircraft like the C-17 and C-130.

Answer. The Air Force's Large Aircraft Infrared Countermeasures Program (LAIRCM) is in Low Rate Initial Production. It successfully completed live-fire testing last summer and will begin in-flight testing 21 April 2003 with first deliveries to Air Mobility Command beginning on or about 5 May 2003.

LAIRCM is an advanced version of the joint UK/USSOCOM Directed Infrared Countermeasures Program (DIRCM). Both DIRCM and LAIRCM systems share common components including: Ultraviolet Missile Warning System, the System Processing Unit and the turret assemblies. The primary difference is LAIRCM uses a colorless, eye-safe multiband laser to counter the incoming missile/s, whereas, the older DIRCM system uses high intensity lamps for this purpose. System makeup: LAIRCM will install three turret assemblies on large aircraft (C-17, KC-10, etc.) and two turrets on the smaller aircraft like the C-130. Here's how the LAIRCM system functions:

First, when the Missile Warning System detects an incoming infrared missile, the Processing System and control unit points the laser turret at the missile, allowing the turret's fine tracker to lock onto the missile's seeker head. The multiband laser then directs energy onto the seeker head ``walking'' the missile off the aircraft. The laser does not damage nor destroy the missile; it just ``spoofs'' the missile's guidance thus decoying it away from the aircraft. USSOCOM has elected to upgrade existing DIRCM lamp-based systems to the laser jamming system because DIRCM's lamps do not have sufficient power to protect the larger aircraft like C-17, C-5, KC-767, etc.

Question. What would be an estimate of the cost to deploy this technology on commercial airliners?

Answer. In December 2002, the Air Force asked the Large Aircraft Infrared Countermeasures (LAIRCM) System Program Office (SPO) to prepare a cost estimate to protect U.S. commercial aircraft with LAIRCM equipment. The SPO, in conjunction with Northrop Grumman (LAIRCM's equipment manufacturer) and Boeing (installs LAIRCM on C-17 aircraft), came up with an estimated \$2 billion total program cost to install LAIRCM on 775 U.S. commercial airliners (approximately \$2.3 million per aircraft). This cost broke down as follows: \$1.8 billion for LAIRCM equipment and its installation, \$100 million for new production facilities, and \$100 million for aircraft nonrecurring engineering expense (NRE).

NRE is required for each series of aircraft, e.g. B-767, MD-11, B-747, etc. to determine the optimum location on each series of aircraft for the 3-5 missile warning sensors and the laser turret(s). This \$15-25 million cost is a one-time expense for each aircraft series.

Since December 2002, Northrop Grumman has refined their proposal to

a LAIRCM-like system and reduced best estimates to approximately \$1.9 million per aircraft for a 300 aircraft pilot program installed across a three-year period (fiscal year 2003-05). The aircraft installation approach has been further studied, resulting in a single conformal installation, which reduces the NRE required for each aircraft series, e.g., B-767, MD-11, B-747. They also have proposed a follow-on program beginning in fiscal year 2006, installing this LAIRCM-like solution on 1,000 aircraft per year, Northrop has suggested that the unit cost will further decline to \$1 million per aircraft excluding NRE and large volume production facilitization. Northrop also estimates less than a one percent increase in cost per flying hour to maintain this LAIRCM equipment.

Multi-Sensor Command and Control Aircraft (MC2A)

Question. The MC2A program envisions placing AWACS and J-STARS like radar capabilities aboard a 767 modified aircraft. The plane would also ultimately have connectivity with space based radar and could command and control UAVs and UCAVs.

What is the current planned delivery date of the first MC2A test bed aircraft?

Answer. The MC2A 767-400ER test bed delivery date is calendar year 2010. The test bed will roll off the Boeing commercial aircraft production line in late calendar year 2005, complete militarization and airframe modifications in late calendar year 2007, and begin Development, Test and Evaluation in late calendar year 2008 to deliver in calendar year 2010.

Question. What is the current planned delivery date of the Multi-Platform Radar Technology Insertion Program sensors?

Answer. Global Hawk's developmental Multi-Platform Radar Technology Insertion Program (MP-RTIP) sensor will be delivered in calendar year 2006, the MC2A developmental MP-RTIP sensor will be delivered in calendar year 2008. These delivery dates are synchronized with the programs' schedules to meet the warfighter's required capability delivery dates.

Question. If there is a delay in one how will that effect planning for the other? Answer: It will cause a commensurate delay to the overall program. If either the MC2A or Multi-Platform Radar Technology Insertion Program (MP-RTIP) is delayed, the overall schedule will need to be resynchronized. MC2A's four acquisition lanes--the 767-400ER test bed, MP-RTIP sensor, weapons systems integration and Battle Management, Command and Control (BMC2) efforts must all be synchronized to enable delivery of the MC2A capability by warfighter's desired 2012 date. Additionally, a delay in the MP-RTIP program will result in a commensurate delay in the delivery of the Global Hawk MP-RTIP capability.

Question. Has there been a delay in the contract award for either part of this program?

Answer. The MC2A 767-400ER test bed contract award has been delayed from October 2002 to June 2003 due to fiscal year 2003 congressional reductions. The MultiPlatform Radar Technology Insertion Program contract was awarded in December 2000, and modified for the MC2A-sized radar sensor in September 2002.

[Clerk's note.--End of questions submitted by Mr. Lewis.
The 2003 Annual Report to the Congress by the Secretary of
Defense follows:]

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